

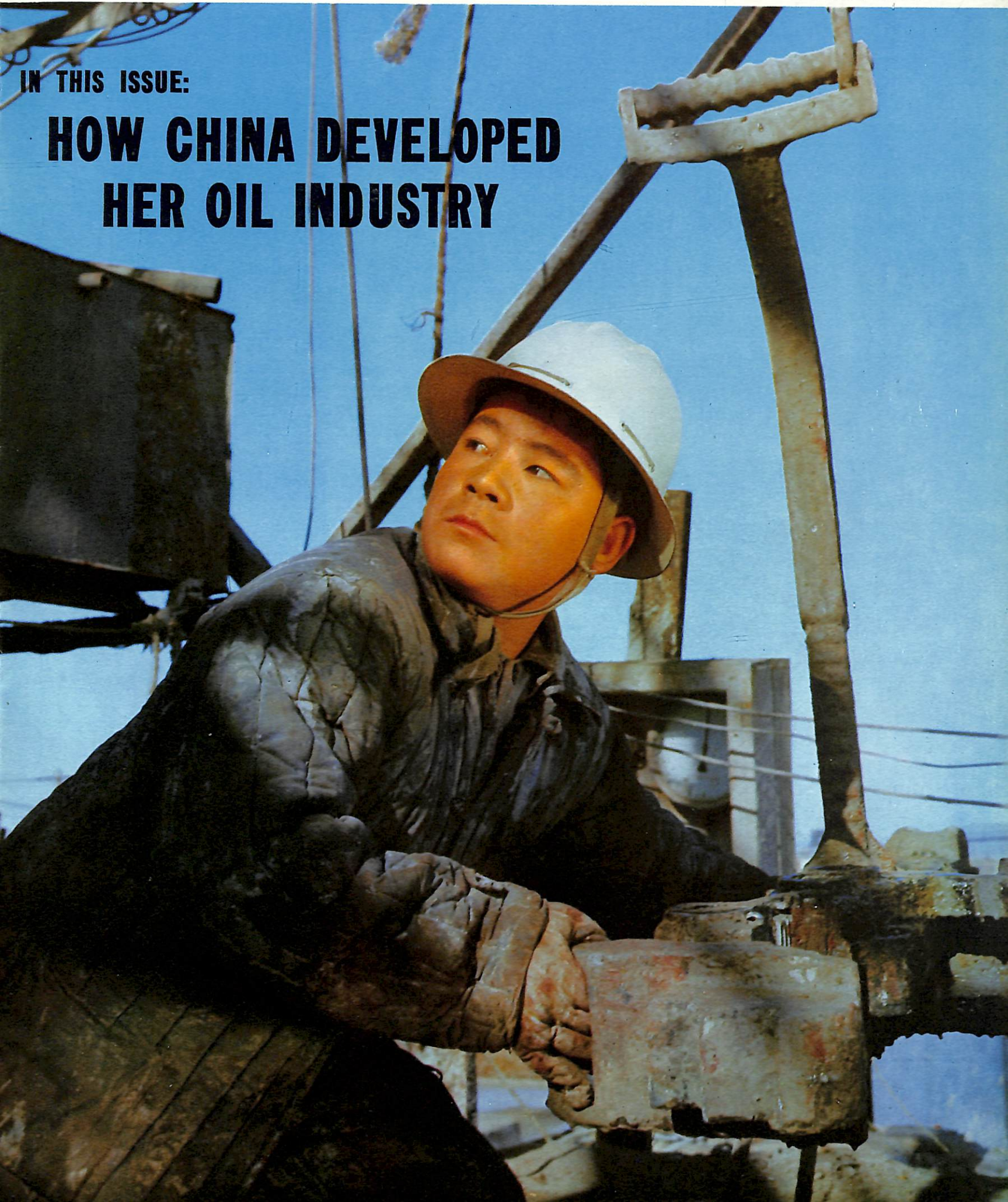
China Reconstructs

VOL. XXIII NO. 10

OCTOBER 1974

IN THIS ISSUE:

HOW CHINA DEVELOPED HER OIL INDUSTRY





China Reconstructs

VOL. XXIII NO. 10

OCTOBER 1974

PUBLISHED MONTHLY IN ENGLISH, FRENCH, SPANISH,
ARABIC AND RUSSIAN BY THE CHINA WELFARE
INSTITUTE (SOONG CHING LING, CHAIRMAN)



CONTENTS

How China Developed Her Oil Industry	<i>Chang Chun</i>	2
A Visit to Takang Oilfield		8
Revolutionary Relics: The Boat on Nanhu Lake		15
Children: Kindergarten Sports Meet		17
Changes in Chenchichuang	<i>Chen I-mei</i>	18
Cultural Notes: The Ballad Goes Contemporary — and Collective		22
Advanced Electronic Desk Calculator	<i>Kung Chang</i>	23
Across the Land: Kashgar Today		24
Acupuncture Anesthesia for Open-Heart Surgery		26
Winter Wheat Finds a New Home in Tibet	<i>Chin Chia-sheng</i>	29
New Commune Members on Maochiashan Hill		32
Language Corner: Lesson 10: Kith and Kin Are Everywhere in our Land (A Short Play)		40
Ancient Military Books Rediscovered	<i>Chan Li-po</i>	43
Geography of China: Deserts		46

COVER PICTURES:

Front: A Takang oilfield worker. (See page 8)

Back: Tug-of-war event at the kindergarten sports meet of Peking's west city district. (See page 17)

Inside front: The *Taching 61*, a 24,000-ton oil tanker under construction at the Red Flag Shipyard.

Inside back: The women's two-km. pursuit cycling team event.

Editorial Office: Wai Wen Building, Peking (37), China.
Cable: "CHIRECON" Peking. **General Distributor:**
GUOZI SHUDIAN, P.O. Box 399, Peking, China.

How China Developed Her Oil

I HAVE BEEN working in the exploitation of petroleum for thirty years. In those thirty years, especially the last 25 of the new China, I have watched our petroleum industry move from extreme backwardness to more than self-sufficiency guided by the policy of independence, self-determination and self-reliance. Looking back at the distance we travelled, fighting

every step of the way, I am stirred beyond words.

Starting from Scratch

China's modern petroleum industry began at Yenchang, north Shensi province.

In 1907 the Ching dynasty government drilled China's first well at Yenchang. After drilling seven

shallow wells in three years the engineers hired from abroad by the Ching government announced that the deposit was too meager to be worth exploiting. Production was discontinued.

Yenchang took on a new lease of life after the Chinese Communist Party established a revolutionary base in the Shensi-Kansu-Ningsia

Workers installing a drilling machine in the pioneering days of Taching. Iron Man Wang Chin-hsi is fourth from left.



Industry

CHANG CHUN

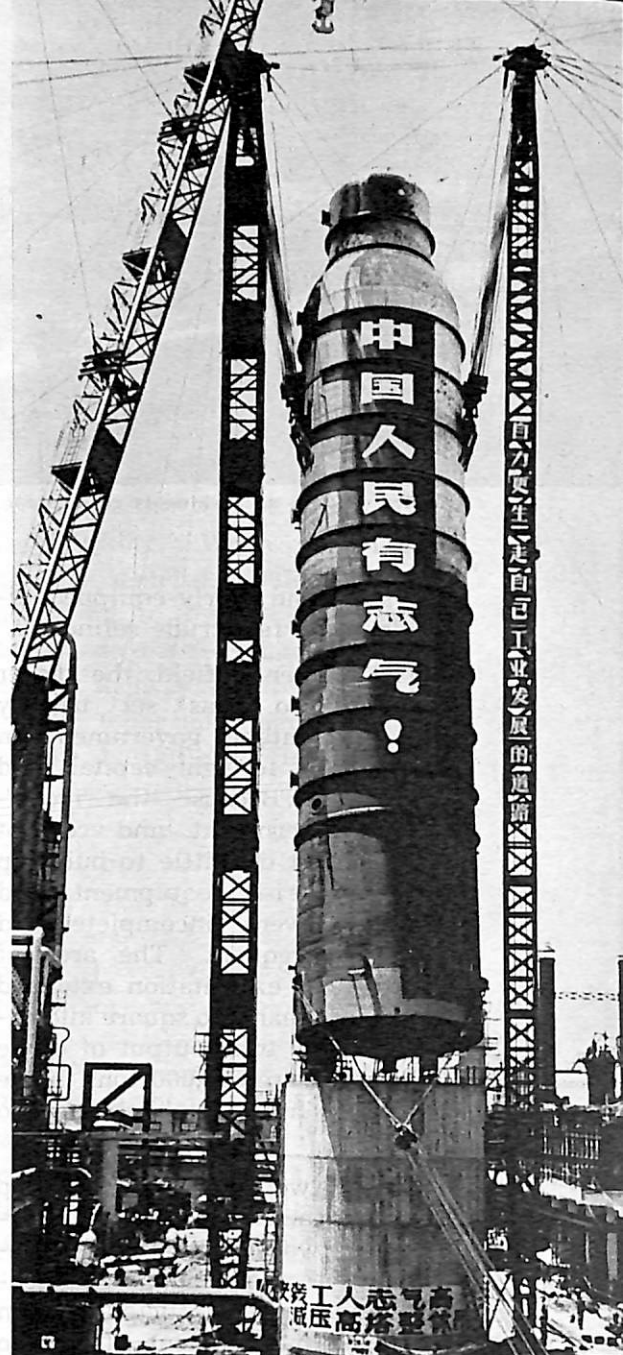
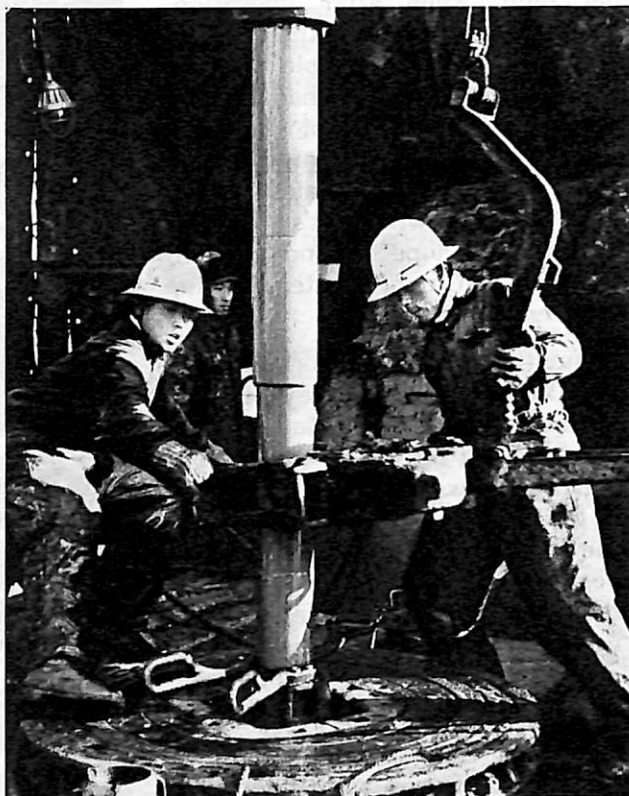
area in the thirties. Production was resumed. In 1945 I was sent by the Party to Yenchang to head the drilling department. We had only 200 workers, a few antiquated drilling machines, thirty-odd drill pipes and some refining stills. But the workers went all out. Under wooden derricks the drillers would drill one well, pull out the pipes, move them to the next

site and drill another. Oil gushing from the wells was scooped up and poured into stills for refining. It was a primitive enterprise, but it contributed its share to the revolutionary war that was going on. In those years when imported oil flooded the rest of the country, our revolutionary base used oil extracted by ourselves.

Engineers and workers discuss how to improve dewaxing of molecular sieves at the Peking General Petrochemical Plant.



High-speed drilling by members of the 3252 team at the Shengli oilfield.



A new installation being put into place at the Shanghai Oil Refinery.

This was something the workers were very proud of.

We longed to prospect the whole of China and find bigger oilfields, but the reactionary Kuomintang government controlled most of the country and so the workers' dreams remained dreams.

The birth of a new China in 1949 opened up wide horizons for her petroleum industry. But we faced monumental difficulties. In 42 years, 1907-1948, only 123 exploratory wells and 45 development wells were drilled, a cumulative total of no more than 71,000 meters. Annual output of crude oil averaged less than 100,000 tons. In the whole country there were exactly eight old drilling machines,



A new oilfield at Taching is readied for drilling.

two small and poorly-equipped oilfields and a few crude refineries.

The Yumen oilfield, the bigger of the two, was set up by the Kuomintang government in 1939 with foreign capital and equipment. Because the incompetent government and corrupt management did little to build up the enterprise, equipment and pipelines were incomplete and blowouts frequent. The area of drilling and exploitation extended to no more than two square kilometers and the total output of crude oil was a mere 520,000 tons in the 11 years from establishment to 1949.

When I went to Yumen to help take over the enterprise after liberation the workers angrily described to me the cold, hunger, punishment and beatings inflicted on them by the old management. "It was no oil enterprise," they said bitterly. "It was a living hell!" Three hundred oilfield police and 700 military police were hired to keep down the 4,000 "oil blacks", as the oilworkers were called in those days, to prevent them from running away or from rebelling. Slaving in the shadow of club-wielding foremen and mounted police, they could hardly pause to catch their breath without having blows rained on them.

After taking over Yumen the People's Government released the workers imprisoned by the reactionary government, abolished all oppressive rules and regulations, organized the workers to struggle against the tyrannical capitalists and foremen. The "oil blacks" became masters of the oilfield. With new enthusiasm and initiative they plunged into work and in the First Five-Year Plan added three

more oilfields to the original one. In those five years they drilled 26 times the total drilled in the 11 years of the old Yumen, and crude oil production was five times the cumulative figure of the past. Yumen became China's first important oil base.

Bankruptcy of the 'Oil-poor' View

The old China was a lucrative market for imperialist oil. As I see it, the imperialists and their scholars fabricated the theory that China was "poor in oil" for the specific purpose of maintaining their monopoly of oil sales in China. Their view that "A large part in China consists of rocks of types and ages in which no possibility of oil deposits exists" seriously impeded China's efforts to develop a petroleum industry of her own. Even after liberation, before the discovery of the Taching oilfield, there were people who did not believe that China had rich oil reserves. Liu Shao-chi and his gang, who blindly accepted everything the foreigners said, echoed their views with "It's wishful thinking to hope to find rich oil reserves in China. Better develop solar energy instead."

But the Chinese oilworkers have a will of their own. They acted in the spirit of Chairman Mao's words, **"We are not only good at destroying the old world, we are also good at building the new. Not only can the Chinese people live without begging alms from the imperialists, they will live a better life than that in the imperialist countries."**

The oilworkers did not believe that China was poor in oil. The late Wang Chin-hsi, an outstanding representative of them, declared,

"Nobody is going to convince us that oil lies only under foreign soil and not under a country as large as ours."

In the spirit of self-reliance and hard work, petroleum workers, engineers and cadres made extensive and large-scale surveys and discovered one oilfield after another. When in 1958 Chairman Mao called on the nation to **"go all out, aim high and achieve greater, faster, better and more economical results in building socialism"**, the oilworkers boldly went ahead to develop the petroleum industry their own way. By the end of 1959 more than 900 teams with 480

Taching General Petrochemical Plant.



drill rigs had been at work in 34 exploration areas. They found large amounts of oil and gas seepages and oil-bearing structures in many provinces. Exploratory drilling in some of the structures resulted in the discovery of many oilfields of industrial value, some in places once labelled "no oil". Facts are eloquent proof: China is rich, not poor, in oil.

In the early days after liberation we had thought there was petroleum only in the northwest, that the southwest had only natural gas. But further prospecting disclosed rich oil and gas reserves in many parts of the country.

Turning-point

A turning-point in China's petroleum industry was the rapid construction of the Taching oilfield in the sixties. It not only proved that China has rich oil deposits. More important, it showed that, relying on her own efforts, China can carry out large-scale exploration and production and build up her own oil industry rapidly.

In 1960 disastrous weather conditions caused temporary economic difficulties. The imperialists, modern revisionists and other reactionaries seized this opportunity to gang up and make trouble for

China. The imperialists tightened their economic blockade against us. The perfidious Soviet revisionist renegade clique tore up contracts, recalled their experts and cut back oil supplies, hoping in this way to bring China to her knees.

In answer to this pressure and taking their cue from Chairman Mao's military tactics, oilworkers and engineers prepared to concentrate a superior force to "fight a battle of annihilation" at Taching — to surmount every difficulty and get the oilfield into operation in the shortest time possible.

Spring in Taching was still freezing cold. From every part of the





Prospecting for new oilfields in the Tsaidam Basin.

country tens of thousands of people converged on the vast wild prairie — to find no roads, no houses, not enough trucks, and a host of other problems. Liu Shao-chi and his gang tried to smash the campaign by attacking it as “sheer chaos, and no way to build industry”.

The Party committee leading the campaign called on the workers and staff to study two articles by Chairman Mao, *On Practice* and *On Contradiction*, and guide their work with his teachings. The study gave the workers confidence. “There are all kinds of difficulties in opening up an oilfield,” they said, “but the biggest difficulty confronting us is our country’s shortage of oil. This is the principal contradiction. If we do not solve this contradiction, the imperialists, revisionists and reactionaries will make things even more difficult for us. Cost what it may, we must get this oilfield into operation.” They raised the slogan, “If conditions are right, get to work. If they’re not right, create the conditions and get cracking.”

I was working at the time in the campaign’s general headquarters and I was deeply impressed by the courage with which the workers

tackled every kind of hardship in order to develop our own petroleum industry. Most unforgettable of all was Wang Chin-hsi, known as “Iron Man Wang”.

The first time I saw Wang Chin-hsi was at Yumen when he was a young driller. Born in a poor peasant family in a village near Yumen, he had begged for a living as a child. When barely 15 he was pressganged to work as a coolie for the Yumen oilfield.

After liberation, educated by the Communist Party, he became a driller and soon leader of his drill team. In the fifties he and his team worked in many places in the northwest and in seven years drilled more than 70,000 meters of wells. Toward the end of the fifties China’s oil shortage was so serious that many motor vehicles had to be driven on gas carried in a huge bag on top of the bus or truck. “Those gas bags weigh on me like a thousand-*jin* load,” Wang Chin-hsi said more than once. “Lack of oil is a tremendous handicap. We must shoulder this burden for the country. This is the responsibility of the working class.”

With this in mind he came to Taching from Yumen and threw

himself into the campaign. The sight of the prairie with its rich potential filled him with an urge to get going. “If only I could smash the strata with my fist and make the oil flow!” he said. So great was his ability to take hardship and his determination to achieve the well-nigh impossible that he was called “Iron Man”, and the name stuck.

Once helping a well crew control a blowout he stayed at the well two days and nights without rest. Finally, his clothes caked with mud, he returned to headquarters to have something to eat. After a few mouthfuls the bowl slipped from his hands and, slumped against a wall, he fell asleep. He lost weight, his eyes became sunken. Urged to rest, he retorted, “I’d give 20 years of my life to get this oilfield going. I’d be satisfied to do just this one good thing for our country — help develop our oil industry in the shortest time possible.”

His team completed the oilfield’s first well in five days and went on to set a national record in drilling. Soon a mass movement spread at Taching to learn the Iron Man spirit. This accelerated construc-

tion. The first train of crude oil rolled out of Taching in June 1960. At the end of the first year we had a clear picture of the oilfield's area and reserve. Within three years Taching was China's most up-to-date oil base.

At a meeting of the National People's Congress in 1963 Premier Chou En-lai announced that China was basically self-sufficient in oil products. This news boosted the morale of the whole country.

On the eve of liberation Chairman Mao had predicted, "Let them blockade us! Let them blockade us for eight or ten years! By that time all of China's problems will have been solved." The Chinese oilworkers turned this prediction into reality. For myself, like a boatman emerging from narrow gorges, my spirits soared at the splendid prospect ahead.

In 1964 Chairman Mao issued the call, "In industry, learn from Taching." The Great Proletarian Cultural Revolution which began in 1966 gave fresh impetus to China's economy. The oil industry, too, forged ahead.

Construction of the Shengli (Victory) oilfield began early in 1964 in the Taching spirit. On May 1 it began shipping out crude oil. In 1973 it produced 13 times as much oil as in 1965, the year before the cultural revolution. Advanced technologies are now used in prospecting, drilling and extraction. The Takang oilfield began construction at the same time as Shengli (see p. 8). China's abundant natural gas fields are also being exploited for use.

Not long ago a new field went into operation at Taching, its daily output of crude oil equalling that of Taching after its first three years. The entire oilfield is now producing five times as much crude oil as it was then.

Scaling New Heights

In old China the reactionary ruling class was completely dependent on imperialists. Petroleum technology lagged 50 years behind the advanced world level. Geological prospecting was technologically backward. Geophysical exploration was limited to small-scale experiments, lacking even

a proper procedure. Drilling techniques were so primitive that the deepest bore-hole was only 1,000 meters. There were no plans for systematic construction, and production was haphazard. There was no way to put out an oil well fire. Petroleum scientists and engineers were pitifully few.

The rapid expansion of the oil industry after liberation made ever growing demands on research and called for a vast increase in trained personnel. In trying to meet these demands we found the best guidance in Chairman Mao's words, "We stand for self-reliance. We hope for foreign aid but cannot be dependent on it; we depend on our own efforts, on the creative power of the whole army and the entire people."

In line with this principle the state set up organizations for research and development, prospecting and designing. Each oilfield has its own laboratories and research and designing units directly serving production. While petroleum colleges trained more technical personnel, on-the-job workers, engineers and cadres spurred progress in petroleum science and technology by conducting experiments to solve production problems.

In the last 25 years we have been able to make advances in the theory of petroleum geology and have evolved a set of methods and techniques for high-speed prospecting. Innovations in tools, machines and technology now enable drilling to be done much faster. Just after liberation a drill team using one rig averaged 1,000 meters a year. Now all the teams average 8,000 to 9,000 meters while quite a few crews can drill 10,000 meters a month. The 3252 drill team at the Shengli oilfield topped 150,000 meters for 1973, setting a new national record.

In exploitation we have been able to keep reservoir pressure stable by water-flooding in the early stages and producing by separate zones. We have also gathered experience in recovering viscous crude oil, production from fields dissected by faults, and transportation of oil and gas mixtures by pipeline in cold regions.

Stimulated by the cultural revolution, our Chinese workers accumulated the experience to carry out experimental exploration of China's offshore oil resources.

At the time of liberation China had only two dozen geologists and the same number of petroleum engineers. Now we have an army of petroleum scientists, engineers and technologists, while more and more oilworkers are contributing to research and development.

At Taching, for example, three-way cooperation groups — mainly workers, also cadres and technical personnel — are active in prospecting and extraction. With extensive and detailed firsthand materials collected on the job they have conducted experiments on a wide scale and produced valuable results. Since its first days Taching has introduced 20,500 innovations. More than 50 of these measure up to advanced levels at home and abroad — such as extraction by separate zones, long-barrel coring and identification of oil-bearing structures according to individual reservoir sandstone.

The method of flooding in the early stages and extracting by separate zones, worked out through practice, has enabled Taching to maintain high and steady production in all 14 years of its existence. This has done away with the former situation of gradual decline in production as the pressure in old wells drops.

Last year workers and engineers at Taching's new field designed a whole set of new technological processes for ground construction. Incorporating the merits of advanced technologies at home and abroad and taking into consideration the geological conditions and oil properties of the new field, these new processes will guarantee steady production and facilitate automation of oilfield management.

Much more work remains to be done, but our experience has shown us that by following the path of independence, self-determination and self-reliance, we will continue to make progress in the petroleum industry.



Oil and gas gush at high pressure from another new well.

A Visit to Takang Oilfield

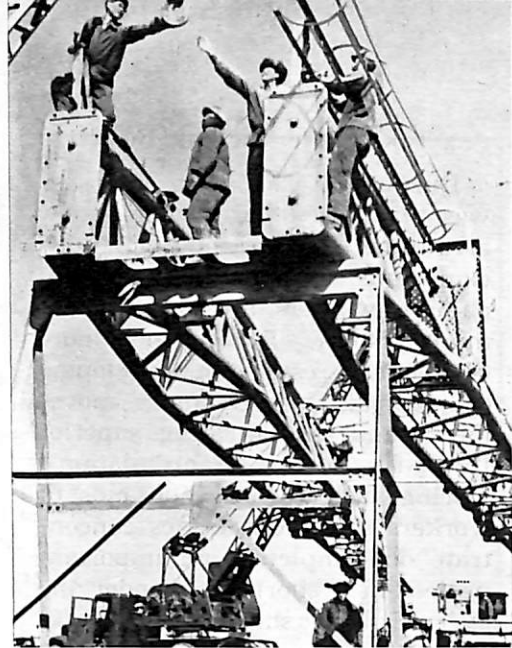
AFTER crossing the last river we came to a boundless expanse of coastal plain. Wow, what a lot of derricks! Through the car windows we caught a glimpse of drill rigs reaching up to the clouds. Rows of white well houses and crisscrossing oil pipelines cast sharp shadows under the blistering summer sun. This was what we had come to see — Takang oilfield.

On the east coast of north China, Takang is a new oilfield prospected and built up by China after Taching (see p. 2) and Shengli oilfields. In the spring of 1964 nearly 10,000 oilworkers from Taching oil-

field came to the barren salt flats here to begin exploring for and producing oil. After ten years of hard work they have succeeded in setting up a sizeable field turning out large quantities of oil and natural gas for China.

A man in his 50s in charge of the oilfield took us to see a new well in a newly developed area in the south of the field. A young worker turned a valve and a powerful stream of oil gushed out of the pipe. Out of habit the man in charge dipped the fingers of one hand in the black crude oil and worked it in the palm of the other

as he talked. "High-grade crude like this isn't easy to come by," he said with feeling. New wells like this go into production every month, he continued, and most of the old ones have kept producing steadily, so production keeps going up. In the first half of this year production rose 22.5 percent above the same period last year. Between 1967 and 1973 the production of the field increased at an average of 60.9 percent a year. The total production of this field over the past eight years was 3.1 times the total for the whole of China in the 42 years from 1907 to 1949.



Staff Reporters

Upper left: When construction of Takang oilfield began, workers moved several thousand tons of drilling equipment through swamps like this.

Upper right: Setting up a derrick for drilling a new well.

Pipe-laying equipment designed and built by the workers themselves.



Taking the Taching Road

During our visit a big campaign was in progress to develop a new area in the south of the field. Such campaigns, initiated by the Taching oilworkers, are a way to get more, better, faster and more economical results in developing an oilfield through mass movements and concentrating superior forces for "battles of annihilation". During such battles thousands of workers in various trades concentrate on completing an important project in a short time under the over-all leadership of the Party committee. To develop China's oil industry and thwart the sabotage of the social imperialists, they throw themselves wholeheartedly into the battle, an embodiment of the revolutionary spirit of self-reliance and arduous struggle.

Since the first day, Takang has kept learning from Taching. Wherever you go you can hear workers say, "We should do as Taching did: Get to work if conditions are right. If they're not right, create the conditions and get going!" Repeated battles for oil and gas have produced tremendous results. Although a modern oilfield has taken shape, they keep up this tradition and continue to wage new battles.

We heard many exciting stories in the command post for the current campaign. The staff of the oilfield planning and designing institute completed the designs for the main projects in the new area in just two weeks, a job which would normally take two months. Surveyors worked 15 hours at a stretch on the first day, covering a record 27.1 kilometers. The next day they worked 13 hours at a stretch, completing the field work. They provided reliable data for laying out roads and oil, water and electric lines ahead of schedule. The electricians proposed, "Work around the clock for three days to get the lights on and the motors running!" They moved a generator set to the worksite on the double and didn't lose a moment installing it. They were transmitting electricity within 36 hours.

The drillers pitched tents on the salt flats and rushed to move in and set up their rigs and start

drilling. Drill team 18119 safely completed a high-quality, high-output well in just 13 days and 11 hours. As construction work went on around the clock, collection stations sprang up, pipelines extended rapidly and roads were built to the new area.

We talked with some veteran workers from Taching who had been in the first batch to come to Takang. From their stories we realized that the way the workers here have taken the Taching spirit to heart is no accident.

Chao Hsueh-ming is a veteran driller who went from the Yumen oilfields to Taching, where he worked under Iron Man Wang Chin-hsi, hero of the battle for Taching. Before Chao left for Takang, Wang Chin-hsi had a talk with him. "Hold high the red banner of Taching raised by Chairman Mao and foster the traditions of arduous struggle and self-reliance on your new battlefield," he said. Chao Hsueh-ming has always remembered these words.

When they got to Takang the leadership told them to rest two days after their tiring journey. "We can't waste a moment," Chao replied, "much less two days." He and others of the team headed straight for the field. Before they asked about food or lodging they asked where the well site was.

Setting up derricks at night was not generally permitted: "At the beginning of the battle for Taching we set up derricks by torchlight," Chao said. "Takang has electric lights, so there's even less of a problem." Following his lead, that night the team set up the derrick and began drilling. Their first well, completed in just 18 days, was up to standard in every respect.

Just as they were opening up Takang the whole region was inundated by sea water. In the tradition of the battle for Taching the oilworkers built a seawall, drained off the water and worked around the clock prospecting, selecting well sites, building roads and bridges on the desolate salt flats. They completed one high-quality well after another, turning the barren plain into an oilfield.

As the oilfield grows new workers keep coming in. All the workers on the front lines of production are young — average age 21. Veterans often tell them about the battle for Taching and the struggle to open up Takang. As a result many outstanding young workers have come to the fore in the movement for learning from Taching and Iron Man Wang.

Underground Secrets

We were very interested in how the secrets of the strata underlying

Chao Hsueh-ming encourages young workers to carry on the tradition of arduous struggle created in the battle for Taching.





Workers of drilling team 3227.

Takang were discovered. Geologists told us that developing the oilfield had not been plain sailing — it had involved a struggle.

After the first well at Takang gushed oil in 1964 they planned a series of deep exploratory wells, hoping to rapidly determine the area of the oil-bearing structure. But things didn't go as they had expected: some wells didn't hit oil, and those that did ran into oil-bearing layers of varying thickness which sometimes petered out completely. The whole field was broken up by faults. Some compared the area to an underground plate smashed into pieces, with so many faults that no regular pattern could be found. They wanted to prohibit exploration of certain badly faulted zones and dismantled equipment already set up for this purpose.

Did these freakish faults follow any regular rule? Was there any

future in developing the Takang region? A fierce struggle ensued between divergent views and two different theories of where knowledge comes from. The oilfield Party committee put the question to the workers, cadres and technicians for discussion and organized them to study Chairman Mao's *On Practice* and *On Contradiction*. They criticized such manifestations of the revisionist line as sitting in an office and working according to the idealist theory of apriorism in isolation from the masses and from actual production.

At a round-table discussion a veteran worker said, "During the battle for oil at Taching we felt our way as we went along. We broke with foreign conventions, went into an area written off by some foreign experts and found a big oilfield there. If we have the guts to tackle the job, why can't

we lick this field, however many its faults?" "Complex faults are nothing to be afraid of," an engineer said. "What's frightening is lack of materialist dialectics."

Led by the Party committee, workers and technicians stuck to the viewpoint that practice is primary. No matter how adverse the natural conditions, they took their instruments into the field and carried out prospecting which finally clarified the geological formations in the faulted zones. They began to master their laws and found rich oil and gas pools. Emboldened by this success, they continued to explore and found oil-bearing bioliths and basalt: The oilfield quickly expanded.

Tough Fighters

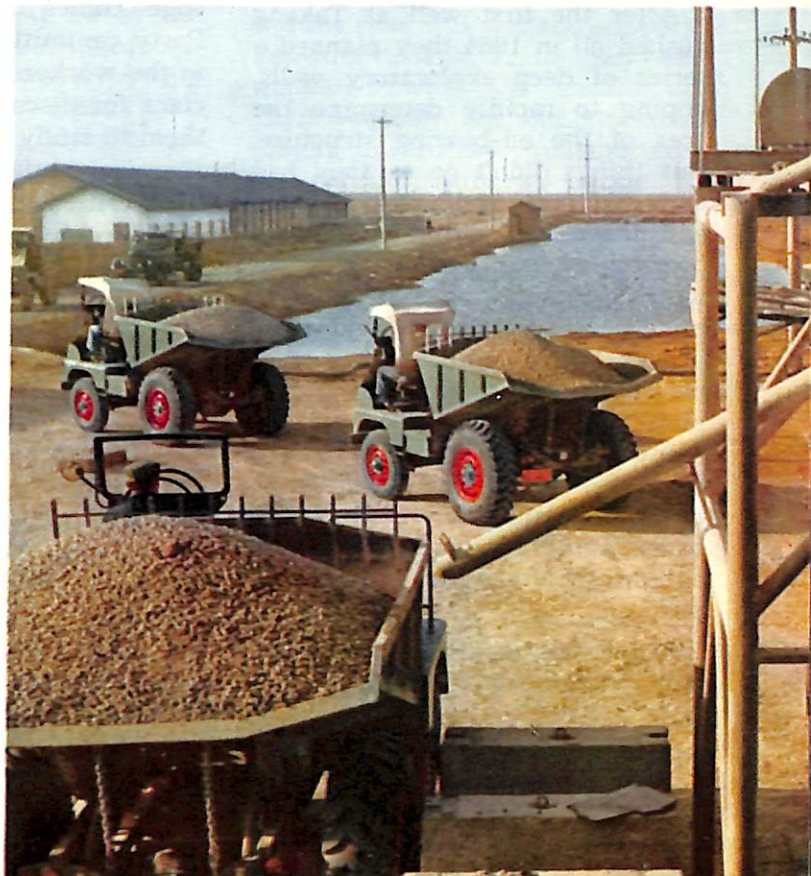
Drill team 3227 is one of the best-known units in Takang. This

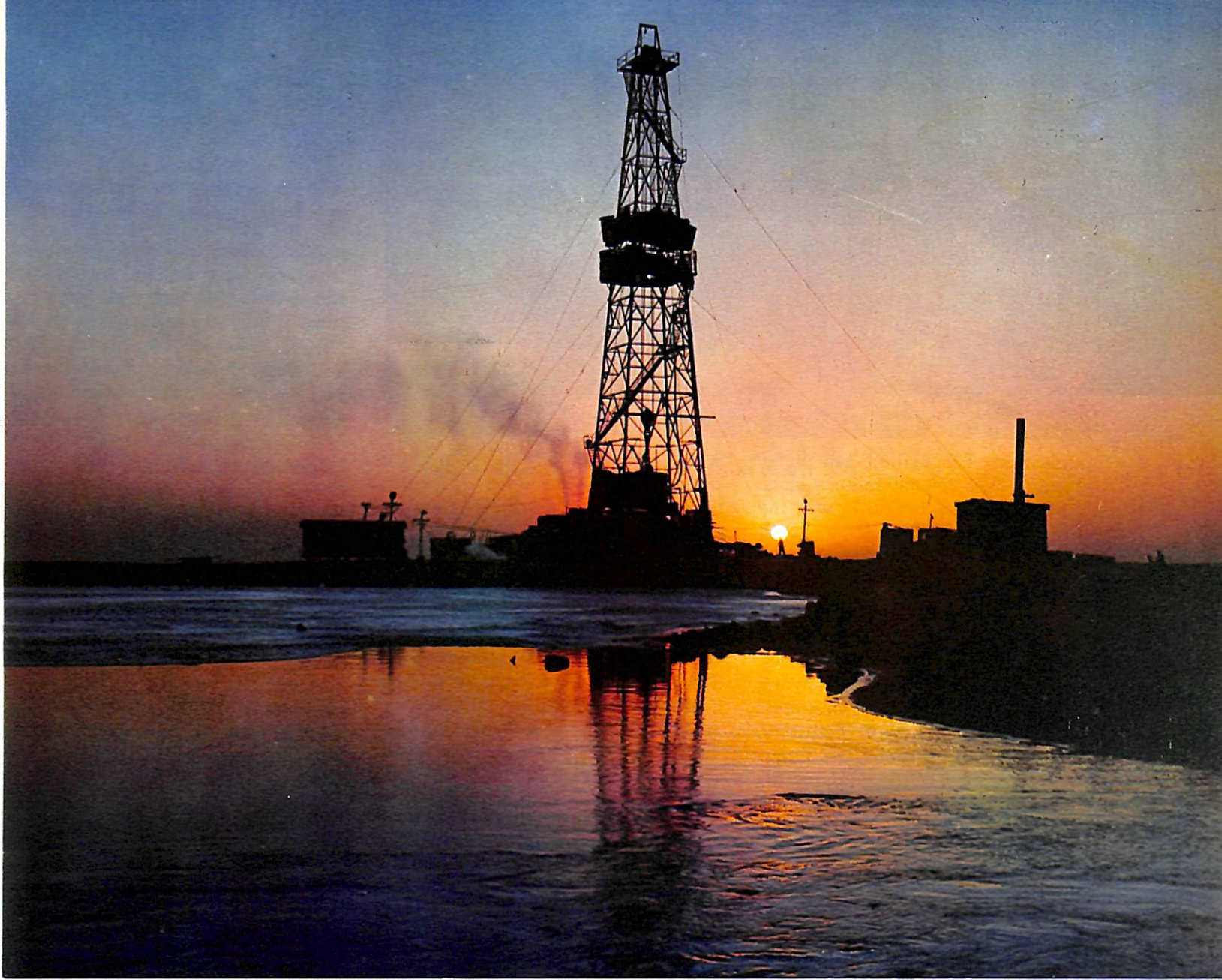


Li Chuan-heng (left).

Extraction workers.

After processing, local alkaline earth is used in place of sand for construction.

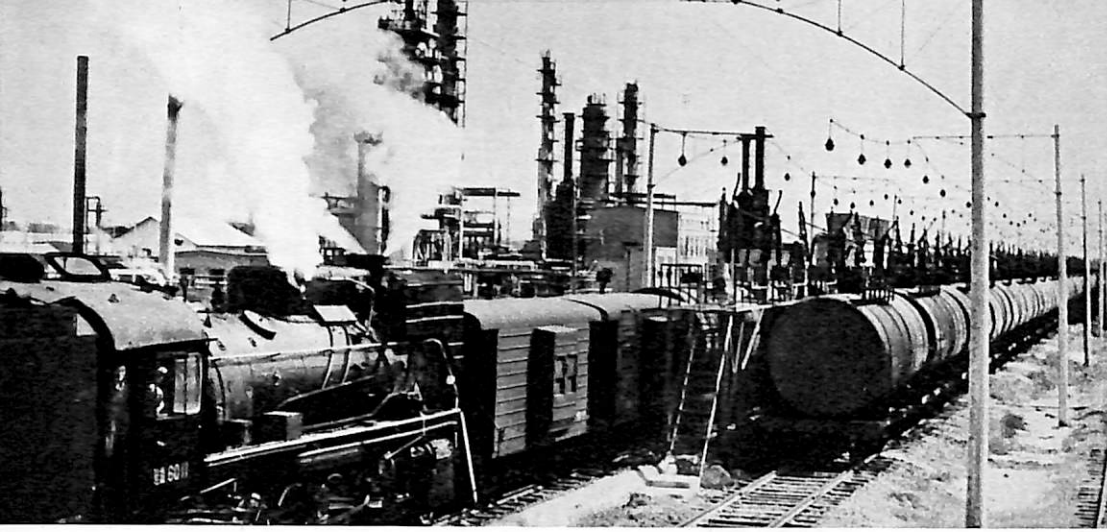




Dawn over the Takang oilfield.

Discussing plans for exploring a new area.





Crude oil leaving the field.

tough team has drilled 145 wells, a total of over 250,000 meters, since it was set up in 1967. It was the first to drill three medium-depth wells in a month and holds the shift and day drilling records.

The former political instructor of this team is Li Chuan-heng, a tough fighter like Iron Man Wang. In 1970 Takang heard about Wang Chin-hsi's magnificent proposals for developing the oil industry. Spurred on by these, Li Chuan-heng put forward the aim for his team: drill 50,000 meters in the next year. Some thought this adventurer. "In finding oil and gas for our country we should be like Iron Man Wang," he replied firmly. "Make revolution and go all out." He took the lead in working hard and that year the team drilled over 50,000 meters, a record for the field.

In 1972 he mobilized the team to drill 10,000 meters in the month of May, the "golden season" for drilling. To attain a total of 10,000 meters of shallow wells a month is no easy matter. Li Chuan-heng led the team in drilling one well after another. With four days to go they had drilled 9,000 meters — it looked like a sure thing. At this critical time Li Chuan-heng, who had been working day and night, fell ill. He stayed in bed that morning. Just as the doctor was giving him an injection, a worker rushed in. "The water pump's broken; we can't drill." As soon as the doctor pulled the needle out, Li got up and ran to the well. He worked alongside the others fixing the pump until, at dawn the next day, he collapsed from exhaustion. Tears in their eyes, the workers helped him back to the

well and wanted to take him back to their dormitory. "I can't leave until the rig starts!" he said. Influenced by his example, the others worked twice as hard, drilling 11,000 meters that month.

Now 36, Li Chuan-heng has taken up the post of vice-director of the oilfield. He attended the Tenth National Congress of the Communist Party of China in August 1973. The Takang oilworkers consider this an honor for them all.

Powerful Motive Force

The oilfield is just as busy at night as by day. One evening we attended a meeting of 50 work-over hands in the workshed of the No. 8 underground operations team. They met to criticize Lin Piao and Confucius. To refute Lin Piao's attacks on it and his attempts to restore the old order in the manner of Confucius, workers recalled the changes in their team during the cultural revolution.

The underground operations teams overhaul oil wells. One of the steps in the process is making a cement plug in the well. Experienced workers can do the job, but influenced by Liu Shao-chi's revisionist line before the cultural revolution, the management depended on a small number of experts while ignoring the role of the workers. The rule was that the cementing of plugs had to be directed by an engineer. But much of the time the engineer couldn't come right away and the workers would just have to sit and wait, sometimes for two weeks, until he got there. When he arrived he often didn't listen to

the opinions of the operators but just went by the book. More than once using too much cement resulted in cementing the oil pipe and the underground equipment in the well, causing serious damage.

During the cultural revolution the workers rose up to criticize these manifestations of the revisionist line and to implement the Constitution of the Anshan Iron and Steel Company* drawn up by Chairman Mao. The oilfield set up a leading group consisting of old, middle-aged and young cadres. Workers took a direct part in management and irrational rules and regulations were revised. The underground operations teams set up groups composed of cadres, technicians and mainly workers to make up plans for well-repair work. This radically changed the old system in which the engineer had the last word, greatly speeded up repairs and improved quality. Overhauling a well used to take No. 8 team a year, but planning the work collectively, they did 17 last year. A well over 3,000 meters deep which had been "crippled" for more than three years was repaired in a short time according to one such plan and is now flowing again.

The movement to criticize Lin Piao and Confucius is going strong throughout Takang. A revolutionary atmosphere pervades the drilling teams, workshops and worksites. "Without the Great Proletarian Cultural Revolution there would not be today's Takang oilfield," workers say. "We must step up the pace of construction and produce more oil for our socialist motherland to consolidate and develop the achievements of the cultural revolution!"

* The Constitution of the Anshan Iron and Steel Company was written by Chairman Mao on March 20, 1960, summing up the basic experience of China's socialist construction and affirmed the revolutionary creation of the Anshan workers. The Anshan Constitution is the fundamental guide for the Chinese proletariat for running enterprises. Its major principles are: keep politics firmly in command; strengthen Party leadership; launch vigorous mass movements; have cadre participation in productive labor and worker participation in management; reform irrational and outdated rules and regulations; maintain close cooperation among leading cadres, workers and technicians; and go full steam ahead with technical renovation and revolution.

The Boat on Nanhu Lake

AN old-fashioned tourist boat open to the public on Nanhu Lake in Chiahsing county, Chekiang province, is a monument in the history of China's revolution. Here, the First National Congress of the Chinese Communist Party, broken off in Shanghai, was resumed, and here it proclaimed the founding of the Communist Party.

The birth of the Chinese Communist Party was the result of the impact of Marxism-Leninism in China and its integration with the Chinese revolutionary movement.

After the Opium War launched by the British imperialists in 1840, China gradually declined into a semi-feudal and semi-colonial country. The people's suffering deepened and they waged many heroic but futile struggles against feudal and imperialist oppression. Seeking for revolutionary truth, progressives went through countless hardships and difficulties.

The victory of the Russian working class under Lenin in the October Revolution in 1917 brought Marxism-Leninism to China.

In the anti-imperialist and anti-feudal May 4th Movement of 1919, the workers held the first big polit-

ical strike in Chinese history and stepped onto the political stage. The May 4th Movement accelerated the spread of Marxism-Leninism in China. Under its influence, the Chinese proletariat quickly became a politically awakened class and the country's leading revolutionary force.

After the May 4th Movement broke out, Comrade Mao Tsetung edited the *Hsiangchiang Review* and set up the Cultural Book Society and Marxist Study Society to spread Marxism-Leninism and help develop the revolutionary struggle against imperialism and feudalism. The May 4th Movement greatly promoted the integration of Marxism-Leninism with China's workers' movement. This laid the ideological foundation for the founding of the Chinese Communist Party and prepared cadres for it.

In October 1920, Comrade Mao Tsetung formed a communist group in Changsha, Hunan province. Other groups were formed in Shanghai, Peking, Canton, and Shantung and Hupeh provinces.

The First National Congress was called in Shanghai on July 1, 1921.

There were 12 delegates, Comrade Mao Tsetung among them. They represented seventy members of the communist groups in various places. Among the delegates a sharp struggle developed over whether it should be a party of the proletarian revolution or a party of bourgeois reformism.

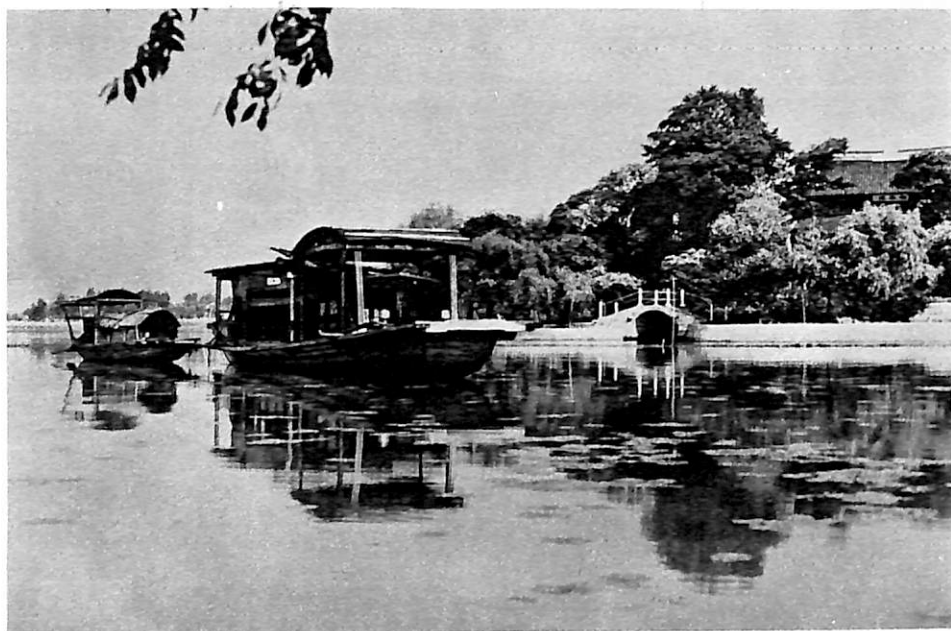
After the struggle, the Marxist-Leninist line of Comrade Mao Tsetung on the building of the party was victorious.

Because Shanghai was then ruled by several old imperialist countries and their lackeys, the warlords of north China, the Congress was held secretly in a house at 106 Hsingyeh Street in the French concession. During the meeting a police spy suddenly entered the house through the back door and then hurriedly left. Knowing that their meeting had been discovered, the delegates left at once. Some minutes later, the place was raided by the police of the French concession.

The next day, the delegates went to Nanhu Lake in Chiahsing county. It was a scenic spot and there were dozens of tourist boats on the lake. The delegates rented one of them and resumed their meeting. On this boat, the Congress proclaimed the establishment of the Communist Party of China, adopted a program and elected its leading body.

Tourist boats on Nanhu Lake, including the one in which the Congress was held, disappeared during the War of Resistance Against Japan (1937-1945). After liberation in 1949, the Chiahsing county Party committee, under the concern of the Party Central Committee, met with veteran workers and others to determine the exact dimensions and structure of the old boat and then made a replica. Sixteen meters long and three meters wide, it is the main item of the Nanhu Lake Revolutionary Commemoration Hall and floats in the southeastern part of the lake next to the hall.

A replica of the boat where the founding meeting of the Chinese Communist Party was held.





"Building a House" relay race.



Spectators.



"Delivering Grain to the State" race.



"Planting Trees" relay.



Running through arches.

Formation exercises.



Kindergarten Sports Meet

SHUSHUMEN, AHYIMEN . . . (Chinese children call adults 'uncles' and 'aunts') . . . kindergarten classmates: the sports meet which we have wanted for a long time is now open!" At the microphone before some 3,000 spectators a six-year-old boy proudly opens the first kindergarten sports meet of Peking's west city district. It was a clear morning early last summer.

The sportsmen were 1,700 three-to-six-year olds from 200 kindergartens in the district. Their referees were athletics workers, teachers and dozens of ten-year-old primary school pupils. In the stands were kindergarten children, parents, teachers, trainees from Peking Teachers' College and leaders from education, health and sports departments.

The two-hour meet took in 20 performances and competitions — the daily games and exercises in the kindergartens, which include gymnastics, exercises with red flags, lifting dumbbells, different kinds of rope skipping, and distance throwing, cycling and tug-of-war.

These were not just "sports-for-sports' sake" events, they all contained educational content related to China's socialist society. A four-year-old group, for example, ran a 160-meter relay race carrying a "baton" which was a tube filled with 300 grams of sand. The event symbolized the "Tachai spirit". China's children learn the revolutionary approach and the love of work from Tachai, an agricultural pacesetter which did much to conquer bad natural conditions by carrying soil in from other places to make fertile fields.

Another event, cheered lustily by the kindergarten spectators, was a race in which 14 three-year-olds each pulled a small truck 20-meters. At mid-point, each loaded a "bag of grain" ("which we grow for the people") and then tugged on to the finishing line. During this race, the kindergarteners in the stands chanted: "Our trucks and carts are busy, we're carrying our harvest to the state; we help the people build socialism, the communes' storehouses are full of grain!"

In the middle of this race, a boy suddenly fell, upsetting his "public grain". He quickly got to his feet, reloaded it calmly and raced on to the goal. Admiring his steadiness and courage, the stands burst into applause.

Perhaps the most exciting event came at the end of the meet — tug-of-war. Sixty small pullers from six kindergartens took part, three ropes going at the same time. When the starting whistle blew, every kindergarten kid in the stands jumped to his feet to shout for the teams. One rope didn't move for some time, both teams straining. Then the south team began moving. The north team dug in, everyone gritting his teeth and pulling together. Red faces, brave hearts and sturdy muscles finally won over the south team.

This big kindergarten sports meet grew out of many individual and joint kindergarten meets in the west city district. Spectators were highly pleased with the general physical fitness, agile movement and the spirit of unity

and fraternity shown by the children — an obvious result of more emphasis on Chairman Mao's educational line during the cultural revolution: all-round development of children's moral, intellectual and physical qualities. Such results could also be seen in similar sports meets held in many other cities on the eve of International Children's Day.

Sports and other physical activities — always related to good educational content — are a main part of the kindergarten curriculum in China. The 130 children of Peking's Sanlitun kindergarten, for example, have running and physical exercises every morning, even in cold winter weather. Three hours of every day are for outdoor games and there is a physical education class once a week. Relating the content to socialist goals, these activities build up physique and health, and at the same time develop a love of work and the collective.

Sanlitun kindergarten children swim in a nearby pool. Their health has improved and the incidence of illness has dropped sharply. One of its six-year olds, Chao Chun-hui, always had colds two years ago. Today he is almost never sick and has become a good (400 meters) swimmer, relay racer and gymnast.

The spirit of "Friendship first, competition second" is encouraged in China's sports. Thus, kindergarten games and sports teach more than mere physical exercise and skill. It is common to see a kindergarten race stop when one of the runners falls. Competitors help him up and the race continues. Sanlitun kindergarten children often play such games as "Building a House" or "Planting Trees", singing, "We love work, and when we grow up we shall become workers, peasants or soldiers. . . ."

CORRECTION

In the September 1974 issue of *China Reconstructs*, p. 37, lower left caption, for "wheat" read "rice".

CHANGES IN CHENCHIACHUANG

CHEN I-MEI



The new Chenchiachuang.

CHUFU county is the hometown of Confucius. . . . Now the people in his hometown have set up socialist cooperatives. After three years of cooperation, the economic and cultural life of the people, who remained in poverty for more than two thousand years, has begun to undergo radical changes. This testifies to the fact that the socialism of today is indeed without parallel in history. It is infinitely superior to the Confucian 'classics'."

This is from a note Chairman Mao wrote when editing an article called 'Agricultural Producers' Cooperative Increases Production by 67 Percent in Three Years'. It was 1955 and agricultural coop-

CHEN I-MEI is secretary of the Party branch of Chenchiachuang brigade, Chenchuang commune in Chufu county, Shantung province.

eratives were being organized all over the country. That co-op has now become our Chenchiachuang brigade of Chenchuang commune. For years we have pushed ahead on the broad socialist road and in this home of Confucius every step of the way has been a struggle between opposing and venerating him, between the socialist and capitalist roads.

Confucius spent his life writing and travelling, doing many evil things to protect the reactionary slave-owning class of his time. His "classics" are full of rubbish written to help the ruling class oppress the people. He pushed the idea of fate: "Life and death are predestined; wealth and honor come from Heaven."

For over 2,000 years this kind of thinking was a mental shackle



All village children attend a ten-year school run by the brigade.

on us poor people so heavy we couldn't breathe. The four families of landlord tyrants in Chenchiachuang not only protected themselves with Confucius' theory of fate but spread the reactionary idea that "the poor count on the rich and the rich count on Heaven". In other words, their riding on the backs of the working people was a "gift from Heaven" and we poor people had to rely on them for our food and clothing. They owned 40 of the village's 47 hectares of land and racked their brains for ways to exploit us.

We not only suffered from landlord exploitation but natural disasters. Three rivers meet and surround our village on three sides. Every summer and autumn they stampeded like wild horses, destroying homes, washing out fields and dumping sand. A big flood in 1942 washed away 17 families. When big winds came up in the winter and spring, yellow sand filled the sky and covered the earth. Birds couldn't fly, people



couldn't walk and crops couldn't grow. Our harvests weren't enough to pay the rent.

There were only three ways out for poor people: leave to escape famine, go begging or move to the northeast. Our village originally had 300 families, but by the time of liberation, there were only 58 left. Of these, 21 were begging in other villages, 5 had sold children and 40 people were working all year round for the landlords.

Chufu was liberated in 1948. We slaves of the Confucius family estate struggled against the landlord tyrants and distributed their land. We took the road of agricultural cooperation in accordance with Chairman Mao's teaching that organizing "is the only road to liberation for the people".

In 1951 cooperatives were set up on the basis of our mutual-aid teams. Our first job was to make good land out of 53 hectares of sand flats. We were only a 21-family co-op. A hundred men,

women and children turned out to dig pits for planting trees. The sand was almost two meters deep. We brought in earth on pushcarts and carried in water from half a kilometer away, planting over 10,000 cypress and willow trees that winter and spring. But big floods that summer carried off most of the saplings and the rest fell over in the mud.

The landlords were delighted. They went around saying that "life and death are predestined; wealth and honor come from Heaven. A poor co-op wants to plant trees. That's like opening your mouth to eat the moon — a big ambition but futile." More than that, they went out in the dark night and killed trees that hadn't been washed away! For a while they created a foul atmosphere in the village.

I put two and two together and called a meeting of the co-op members one night. I opened it by saying, "Tonight we'll discuss whether or not we poor people were born poor and the rich born rich." This brought the meeting to a boil. Chen Ching-mu, a young man whose father and grandfather had hung themselves because they couldn't pay the landlord's rent, clenched his fist and stood up in the crowd. "That's a lot of garbage!" he said. "In the old society it wasn't that poor people had poor destinies. Wolves ran things. We were poor because the landlords exploited us."

Tang Yu-jung spoke. In the old society she had gone begging from place to place to escape famine and sold a son and a daughter. "We used to believe in spirits and our fate as decreed by Heaven, but in the end there was nothing in the pot and we had to go begging to keep from starving. The skies cleared only after Chairman Mao and the Communist Party led us to overthrow the landlord tyrants. We must not be fooled again, we must wholeheartedly follow the Communist Party and Chairman Mao."

After discussing what the landlords and rich peasants said about life, death, fate and Heaven, we all agreed that we should fight back with "Man's will, not heaven, decides" and keep working.

Man, Not Heaven

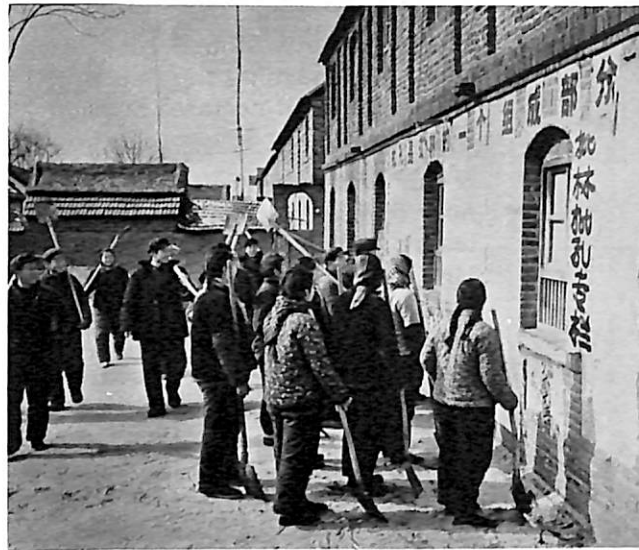
We had to think of a way to control the wild river. Several of us co-op cadres put on raincoats and went out in the rain many times to check its flow. We also studied the history of its changes of course. It had once run about a kilometer away from the village. We decided to dredge this old course, turn the river back into it and build an embankment to hold back floodwaters. We planted trees inside the embankment.

After the autumn harvest the co-op members went to work on the sand flats again. We turned them green with another 30,000 willow and poplar saplings. The next year we had a bumper harvest and no

The author and other brigade members criticize the fallacies of Lin Piao and Confucius.



Peasant posters criticizing Lin Piao's attempt to restore capitalism with the Confucian precept: "self-restraint and return to the rites".



longer had to ask the state for grain. All of us poor and lower-middle peasants* wrote a letter to Chairman Mao reporting on the changes that had taken place since we had become a cooperative.

In 1955 Chairman Mao's note and our report were published in *Socialist Upsurge in China's Countryside*. The sound of drums and gongs filled a joyous Chenchiachuang. "We did as Chairman Mao said and took the right road," everyone agreed. "We must build up Chenchiachuang even better to show the power of socialism."

We had greater drive after that and thought about how to make full use of our sand flats. On a visit to the northeast I saw large apple orchards. Perhaps we could grow apples in Chenchiachuang. No one in our village had ever seen one so I brought four big red ones back with me. We cut them up at a meeting of the co-op members so everyone could have a taste. "Hey, I-mei! It's really good!" old man Chen Shao-lun said, slapping his leg. "If we can grow apples on the flats it'll be a big development." The meeting decided to plant them.

We sent two young people to Shantung Agricultural College in Tai-an to learn how to raise apples. Planting them on sand flats takes work. Every winter and spring we dig up the sand around the trees, cart it away and replace it with good earth mixed with manure. So far we have made 33 hectares and get 50 tons of apples a year.

Since we could raise trees and grow fruit on sand, could we turn up the earth buried underneath the sand for centuries? Digging deep we found good black earth. By "turning the flats over", we made seven hectares of paddy-fields.

Our once harmful sand flats are now covered with trees. Half our team's income comes from this land — apples, peaches, apricots, walnuts and other nuts, rice, peanuts, potatoes and timber for building. "Our village used to be

poor because of the flats," brigade members say. "Now we're rich because of them."

We didn't neglect our 48 hectares of other fields, especially during the cultural revolution. We planned a new layout, levelled them and drilled large-diameter wells for pumps as part of a network of channels crisscrossing the fields. Now we can count on high yields. Ten days without rain used to mean a drought here, but now even if it doesn't rain for 100 days we can still irrigate all our fields in six days. By switching from three crops in two years to two crops a year and improving our seed we are growing a dozen times as much grain as before liberation. We have sold 90 tons of grain to the state every year since 1968, an average of one ton per family.

Our brigade is developing a varied economy. We have a grain mill, oil press and sewing and shoe-making groups. Eight cows provide fresh milk for children and others who need it. Before liberation we lived in dark hovels that the wind whistled through and that leaked when it rained. Now the old houses have been renovated and the brigade has built 700 rooms of new housing.

Chen Chin-ching is a member of our brigade. In the old society, at

the age of 13, he went to the northeast with his father who was fleeing from the landlord. Chen stayed there 57 years, coming back with his wife and sons in 1970 when he heard that his hometown had changed greatly. They live in a brick and tile house built by the brigade. Because of his age he was assigned to watch the vegetable fields. His wife cooks in the brigade canteen.

Masters of Culture

Reactionaries through the centuries have praised Confucius as a "great educator". He boasted about "training without distinction of clans". But when he enrolled students he never forgot to ask for ten strips of dried meat as tuition (which of course no common student could pay). After his student Fan Chih asked him how to do farm work Confucius cursed him behind his back as a low person. We working people just didn't exist in his eyes. In the school run by descendants of Confucius at Chufu, only the children of landlords or rich peasants were trained. The three students from our village in this school before liberation were no exception. There was a saying in Chufu then: "There are many illiterates before the gates of Confucius the Sage."

Believing that "Man's will, not heaven, decides", brigade members drove back the river, made fields and planted trees.



* This is a political term denoting class status and not present economic status. In class struggle the poor and lower-middle peasants are the most reliable allies of the proletariat.

After liberation we keenly felt the importance of education in taking the cooperative road and reconstructing our village. When we set up our mutual-aid team we didn't have anyone who was literate to record work points. We had to keep records with sorghum stalks. A whole one was ten points, a half one five. When we settled accounts at the end of the year, each member's stack of stalks was so big we could hardly count them all. We determined to educate ourselves and raise our children as new-type peasants with an education and socialist consciousness.

First we ran a winter school and literacy class. As our collective economy grew stronger our brigade set up a primary school, junior middle school and senior middle school. Middle school education is universal in our village. All 175 of our school-age children are receiving a free education. We have 56 junior middle school graduates, 46 senior middle school graduates and three university students. All those under 25 can read and write. We no longer suffer the helplessness that comes from illiteracy.

Advancing through Struggle

In 1961 class enemies inside and outside the country cooperated in attacking China's General Line, the Big Leap Forward and the People's Communes. The revisionist Liu Shao-chi came to Chufu to personally offer a sacrifice to Confucius. Wearing a long gown, he bowed down before the statue of Confucius in the temple.

In Chenchiachuang we have a landlord nicknamed "Little Hot Pepper". His real name is Chen Shao-chu. By pretending to be from a middle-peasant family he had sneaked into the Party. Thinking the time was ripe, he got some bad people together and spread the idea that "from now on we have to do things the Sage's way". They hated our persistence in taking the socialist road. Aping Confucius, they said drilling deep wells and controlling the sand went against destiny and disturbed the wind and water—a superstitious belief that the location of ancestors' graves affects one's fortunes. They



Selecting seeds of "Chenchiachuang No. 1", a variety of wheat they have improved themselves.

framed the brigade leaders for ten big "crimes", seized leadership and began sabotaging our collective economy. They cut down apple trees, dug up grape vines, filled in a deep well and distributed seed grain as food grain.

At this point Chairman Mao convened the Tenth Plenary Session of the Party's Eighth Central Committee, established the Party's basic line for the whole historical period of socialism and issued the call: "Never forget class struggle."

In the spring of 1963 I had just returned from a meeting of labor models in the east China region. I went from door to door giving the poor and lower-middle peasants the spirit of the plenary session and discussing the class struggle in Chenchiachuang with them. With the support of the county and provincial Party committees we counterattacked Chen Shao-chu and a handful of other class enemies, exposed his reactionary features and seized power again. With the brigade back in our hands, we cleaned out the well they had filled in, repaired channels and replanted 30,000 trees. We doubled our grain crop in one year.

Changes in Chenchiachuang have been faster since the beginning of the cultural revolution but class struggle doesn't stop. To teach vigilance in class struggle, we meticulously cultivated a grape seedling left by Chen Shao-chu into a large flourishing arbor. On the well he filled in we put a wooden plaque reading "Educational Well". These are "classrooms" where we teach the young generation about classes and political lines.

Since the beginning of the movement to criticize Lin Piao and Confucius, we have often held meetings beside this well and under the arbor where we denounce the vicious old society, recall the road we have travelled since liberation and talk about the great changes in Chenchiachuang. Lin Piao's plot to restore capitalism in the manner of Confucius' "self-restraint and return to the rites" makes our peasants furious. We've been exploited and oppressed by the landlords. We've had our leadership captured and our economy sabotaged by the class enemy. Lin Piao tried to turn history backward and make us suffer again, but it's all a day-dream! We're going along the socialist road and our children too!



Cultural Notes

The Ballad Goes Contemporary —and Collective

THE BALLAD, performed to an accompaniment on the singer's own instrument, is one of China's traditional art forms. Now a group of 11 young women with the Shanghai Philharmonic Society are performing new and contemporary ballads, accompanying themselves with traditional instruments. They use gestures and facial expressions to dramatize the narrative.

Their instruments, which date back through the centuries, include the *pipa* (a fretted 4-stringed guitar-like instrument), the *juan* (a 2-stringed banjo), the *cheng* (a many-stringed zither-like instrument), the *yang chin* (dulcimer) and the *erh hu* (2-stringed fiddle).

Their presentation, differing from both the traditional self-accompanied ballad singing as well as from ordinary choral singing, is fresh and lively, with singing now in unison, now in turns, now interspersed with instrumental music or dialogue, sometimes in soft southern dialects. Assimilating traditional tunes and playing techniques, the girls have made bold changes in these in order to reflect present-day life in socialist society and worker-peasant-soldier heroes.

They often perform for Shanghai workers and commune members in its outskirts and have also delight-

ed audiences in Peking and Kwangchow (Canton).

In the number "Chairman Mao Praises Us Militiawomen", the girls use the traditional technique of brushing the *pipa's* four strings simultaneously and twisting two together, producing a fast, lively rhythm to evoke the drill of intrepid militiawomen.

"Women Textile Workers" was composed with the help of the workers. In the playing of the *cheng*, they attain quite a good effect by using glissando, portamento and rapid runs with first one hand and then the other to express the joyful labor of the weavers, the rise and fall of the cloth on the looms and the flying shuttles.

The 11 young women developed this form during the cultural revolution while students in the national instruments department of the Shanghai Conservatory of Music. Making a new study of Chairman Mao's teaching that literature and art should serve the workers, peasants and soldiers, they recalled how much such audiences had liked this national art form.

They persisted in the direction pointed out by Chairman Mao, "Make the past serve the present"

and "Weed through the old to bring forth the new". They continued going to factories and communes with their traditional instruments.

As all of them were instrumentalists, they had not learned singing or acting. But their determination to serve the workers, peasants and soldiers enabled them to overcome all difficulties. They asked singers to teach them and worked hard training their voices. To make their gestures natural and graceful, they practiced with great patience before a mirror. They did their best to coordinate their playing, singing and acting.

THEIR effort won warm support from the vast majority of teachers and fellow students. But there were also a few, deeply influenced by old ideas on art and literature, who sneered that items such as these were not fit for the concert stage. The girls said, "Since our purpose is to serve the workers, peasants and soldiers, we should hear what they have to say." They toured factories and communes in the outskirts and asked opinions. Unlike the fault-finders, the workers and peasants said, "Your performances reflect the life of us revolutionary people. You sing what we want to say."

This is one of the new things born of the cultural revolution."

After that, the group more consciously learned from the workers, peasants and soldiers by living and working with them, asking old workers to tell them the histories of their factories, and poor and lower-middle peasants to describe their past sorrows and present happiness. This brought about a change in the girls' thoughts and feelings.

While learning from and performing for the workers of the Shanghai No. 17 State Cotton Mill, the group observed the entire process of production and asked the workers for detailed accounts of the tremendous changes liberation had brought to the mill and the deeds of model workers. Every member of the group was stirred by the struggle going on in the factory and the workers' revolutionary spirit and enthusiasm for production. To reflect these, the girls decided to compose, with the aid of the workers, a piece combining instrumental music with ballad singing. This was how "Women Textile Workers" came into being. They gave many performances of this composition, collecting comments and criticisms from the workers.

"Your singing sounds very tense," commented an old worker. "You should express our happiness and confidence as masters of the country weaving cloth for the revolution." Amateur songwriters among the workers helped rewrite the words and music.

Today "Women Textile Workers" is being performed by the group for the public. It voices the feelings and determination of the proletariat, expresses the textile workers' spirit of keeping both the motherland and the world in mind. The bright, cheerful tempo seems to lead the audience right into the scene of enthusiastic labor.

After the girls graduated from the conservatory they were assigned to the Shanghai Philharmonic Society. Hard work and practice have enabled them to improve their playing, singing and acting. Some of them can now compose or adapt music to their own form of presentation.

Advanced Electronic Desk Calculator

KUNG CHANG

THE Great Wall 203, an advanced type of electronic desk calculator, was trial-produced early this year by a plant under the Institute of Mathematics of the Chinese Academy of Sciences. It is 2.5 times as fast as similar calculators produced abroad, has twice the storage capacity and an expanded machine language. It is also slightly smaller and easier to operate than such models.

The Great Wall 203 is of a type more advanced than ordinary electronic desk calculators. It has more functions, greater storage capacity, higher operating speed and under program control can automatically solve complex problems. Programs can be written, debugged and modified conveniently at the keyboard. Equipped with a printer and a magnetic tape unit, it is a complete, independent small computer system that performs some of the functions of a general-purpose electronic digital computer. Its easier handling and maintenance make it suitable for wide popular use.

Most of the people who designed and built the calculator are young mathematicians. Though they were unfamiliar with electronics and computing and their plant was poorly equipped, they drew encouragement from Chairman Mao's teaching, "**The Chinese people have high aspirations, they have ability, and they will certainly catch up with and surpass advanced world levels in the not too distant future.**" After studying a lot of material and critically assimilating the good points of foreign and domestic calculators, they boldly created a design in line with the characteristic of Chinese components. Making full use of collective wisdom, the whole plant made suggestions in the course of trial production.

They designed and built this new advanced electronic desk calculator which uses integrated circuits in one year and five months. Now the Great Wall 203 is undergoing comprehensive testing to perfect it for production and distribution.

Testing the Great Wall 203.





Downtown Kashgar.

Across the Land

Kashgar Today

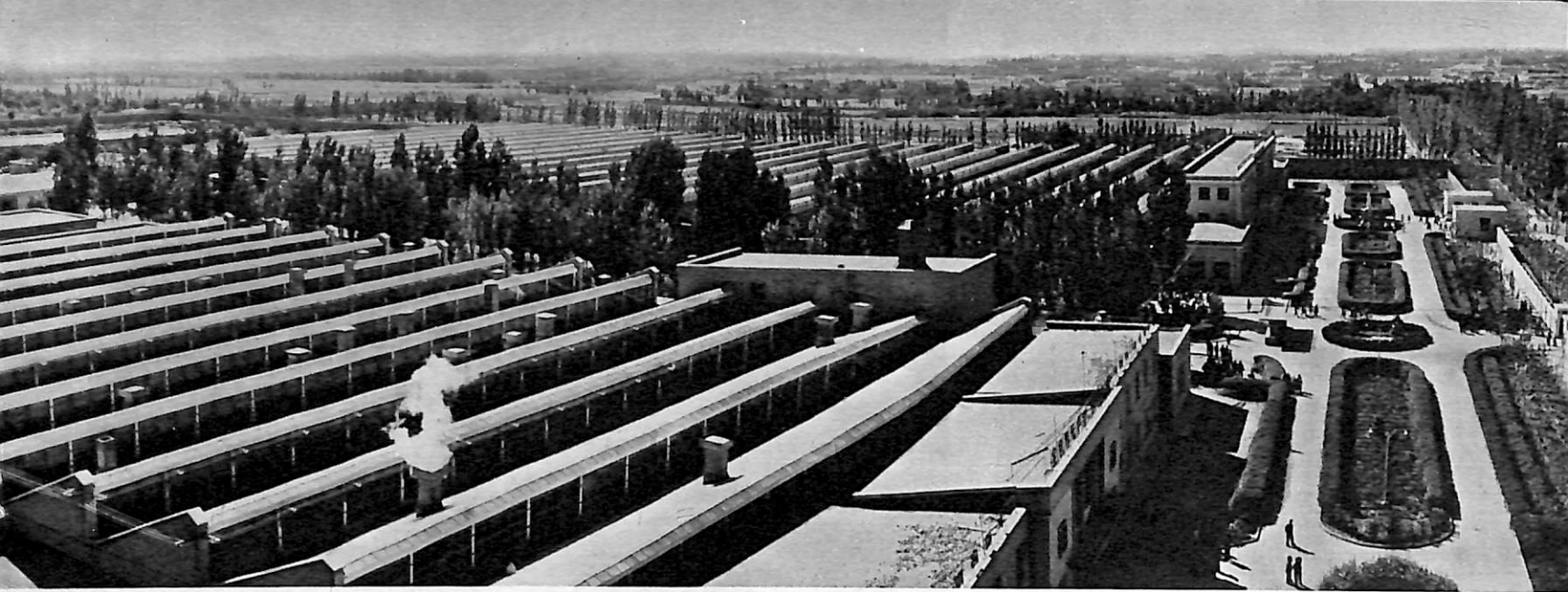
Chemical experiment in the Kashgar No. 1 Middle School. The city, which formerly had no middle school, now has seven.



KASHGAR in the Sinkiang Uighur Autonomous Region, China's westernmost city, has a history of 2,000 years. Situated at the base of the Pamir plateau, in ancient times it was on the route

Uighur carpet weavers. Kashgar rugs are famous.





After the Kashgar Cotton Mill was built. This used to be a cotton-growing area which produced no cotton cloth.



Aitika Square.

of international trade and cultural exchange with central Asia. Now it is the economic and cultural center of southern Sinkiang.

Before liberation it was a seedy place with narrow streets, where the working people of Uighur and

other minority nationalities lived in poverty.

Since liberation broad avenues have been built lined with new buildings distinguished by their national style. Formerly devoid of modern industry, the city now has

electrical power, facilitating development of textile and other light industries. Handicrafts of the minority nationalities, which have a long history, have also made swift advances. The people's life has also improved.

Kashgar is a producer of musical instruments for the minority nationalities.



Aputu brass vessels, a traditional handicraft item popular with the Uighur people.



UNDER the shadowless lamp of the operating room a surgeon opens up the heart of a 25-year-old woman suffering from a ventricular septal defect. The patient's breathing and heart action is taken over by a heart-lung machine. The surgeon goes about repairing the defect with a piece of dacron. In the room there is no odor of anesthetics. No big equipment for administering anesthesia or keeping the patient's temperature lowered is visible. Instead, there are eight fine needles attached to an electrical stimulator and inserted at the patient's wrists and calves.

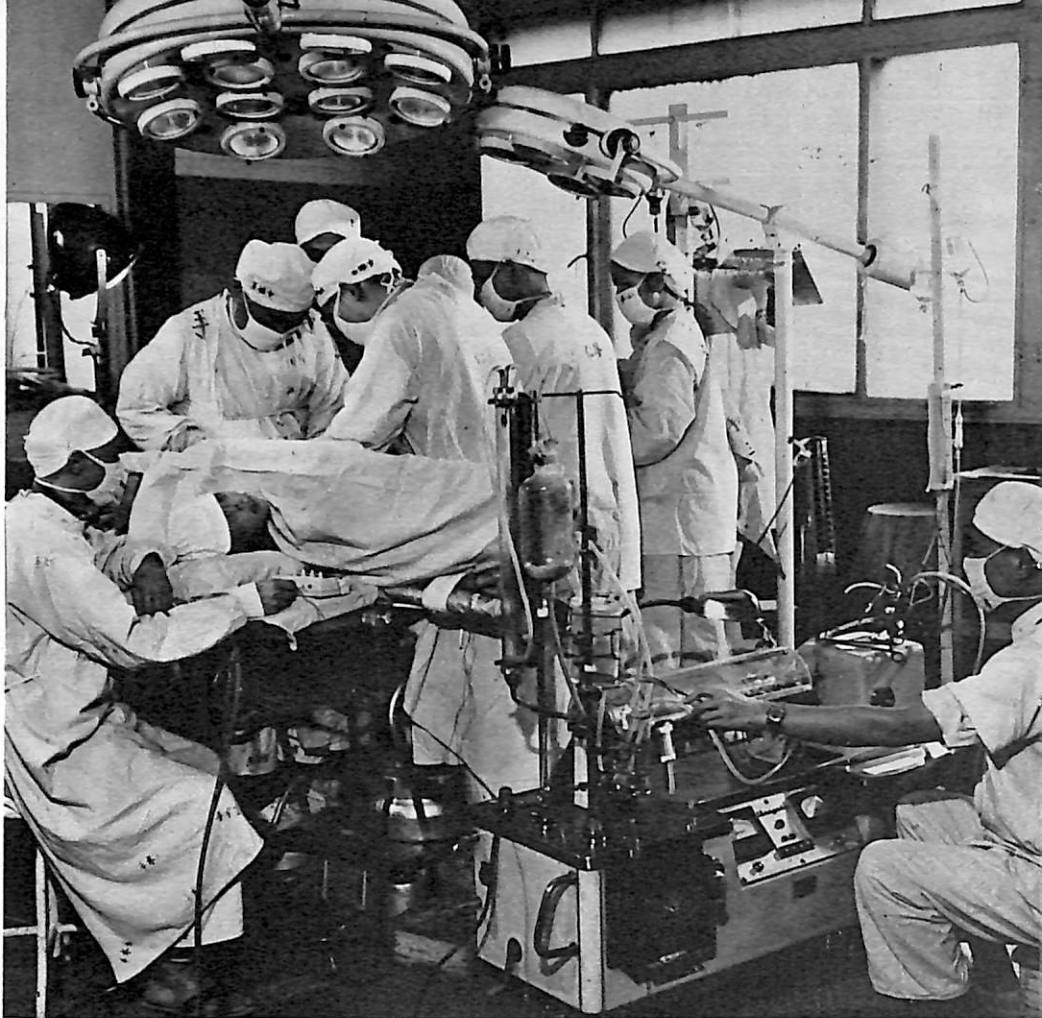
The patient is conscious throughout the operation and appears calm and at ease. Her face remains relaxed as the doctor cuts through the skin, saws through the breastbone, manipulates her heart and starts the repair. She seems to feel no unbearable pain. The operation over, she wants a drink and is given some orange juice. This is a description of our 110th case in two years in which we have performed open-heart surgery using acupuncture anesthesia. This form of anesthesia was successful in over 90 percent of the cases.

How We Began

Three years ago a report on acupuncture anesthesia given at a national conference on integration of western and Chinese traditional medicine stated that open-heart surgery was one field in which it had not yet been used. This kind of surgery requires that the surgeon open the interior of the heart to repair defects. A heart-lung machine takes over the functions of the patient's own heart and lungs. At that time such surgery done under general anesthesia necessitated hypothermia, or lowering the patient's body temperature.

We heart surgeons felt it was unfortunate that acupuncture anesthesia had not been used in open-heart surgery because we our-

The above article was prepared in collaboration with the group studying acupuncture anesthesia for open-heart surgery at the Shanghai No. 2 Medical College's Third Hospital.



Acupuncture Anesthesia for Open-Heart Surgery

selves had long wanted to try it. We knew that if such surgery could be performed without hypothermia at the normal body temperature it would be safer for the patient. The process would be simpler and less expensive. Certain postoperative complications could be avoided, such as metabolic disorders caused by the rapid drop and rise of body temperature and possible complications of the respiratory system resulting from the insertion of a tube in the windpipe for administering the usual anesthetic. Because with acupuncture the body's functioning can be kept regular, there is no shock to the patient's system to lower his resistance. Thus the

patient recovers faster after surgery. He can take food and move about sooner. We had not gone ahead because we feared that a fully conscious patient, though under acupuncture anesthesia, could not stand the pain at certain points during the surgery.

In 1972, in connection with criticism of Lin Piao and his followers, the hospital Communist Party branch led us to deepen our study of the works of Marx, Engels, Lenin and Stalin and the writings of Chairman Mao. We criticized the idealist apriorism advocated by Lin Piao and company which replaces objective practice with subjective judgment, and their blind

worship of things foreign. In studying Chairman Mao's *On Practice* we came to better understand that all true knowledge is derived from practice. Then, viewing our attitude towards acupuncture anesthesia for open-heart surgery, we saw that to deny its possibility on the basis of past experience was also a kind of subjective judgment, an apriorist way of thinking.

Also, forgetting Chairman Mao's teaching that "Chinese medicine and pharmacology are a great treasure-house", we had looked

only to the western methods of anesthesia and neglected to delve into the experience accumulated in the course of using acupuncture. This actually reflected our blind worship of foreign things. Chairman Mao teaches us that China ought to make a greater contribution to humanity. We criticized our wrong thinking and resolved to blaze a new path by trying to use acupuncture anesthesia in open-heart surgery.

Guided by Past Experience

Having overcome these ideological barriers, we started to study



Lu Pei-chun back at work in the factory after surgery.



Anesthetized locally by means of acupuncture, the patient feels no severe pain as the doctor splits her breastbone with an electric saw.

the question of whether the patient could tolerate the pain. We summed up our experience in thoracic surgery with acupuncture anesthesia. In one case, when we operated on a patient with a tumor of the thymus gland, he had apparently felt no great pain when we cut through the skin and sawed the breastbone. In several cases of cardiac surgery that did not require the heart-lung machine, we manipulated the heart and inserted a finger into it for intracardiac maneuvers. Once, we stopped the blood circulation for a very short time in order to incise the stenotic pulmonary valve and do a digital exploration of the right heart. In another instance, to save a patient

whose heart had stopped beating we opened up his chest and massaged the heart and applied electric stimulation. In none of these cases did the patient show any sign of unbearable pain. We reasoned that we could find out what we did in these separate cases and use it in open-heart surgery with acupuncture anesthesia.

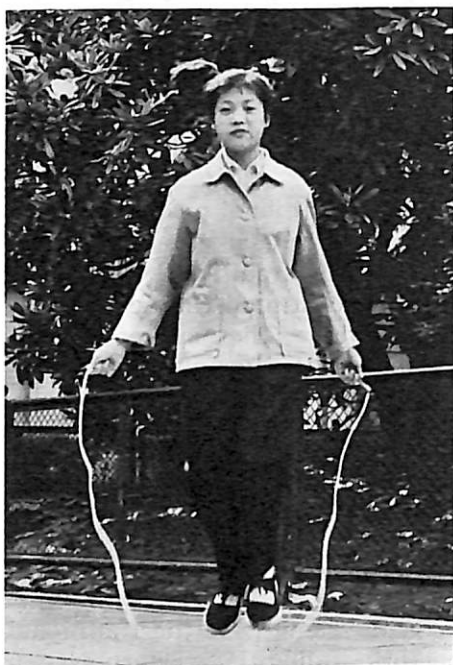
Hoping to do away with the need for hypothermia, we studied the way extracorporeal circulation employed in open-heart surgery had developed. It was first used for such operations at normal body temperature. The heart-lung machine, however, could not meet the oxygen requirements of patients

with complicated cardiac defects who needed prolonged intracardiac manipulation. Hypothermia was then added as an adjunct to lessen the need for oxygen. We concluded that now surgical skill and the mechanics of the artificial heart and lungs have improved so much that it is quite safe to perform open-heart surgery with extracorporeal circulation at normal body temperature.

First Trial, More Study

After sufficient ideological and technical preparation, we drew up a plan for our first trial, which included whatever emergency measures might be required. On April 19, 1972 we used acupuncture anesthesia for the first time in open-heart surgery on 14-year-old Sun Mei-hsin for trilog

Tu Yu-ping can now play like other children.





Surgeons trained in western medicine learn acupuncture anesthesia points in the ear from doctors of traditional medicine.

(pulmonary stenosis, atrial septal defect and right ventricular hypertrophy).

With the heart-lung machine in operation and the interior of the heart exposed, we began the repair. We were greatly encouraged when the patient interrupted the nurse who had been telling her a story to say, "Oh, that's not the way the story goes, . . ." indicating that her mind was clear and she was not suffering. The patient began taking oral nourishment on the day of the surgery. She got out of bed on the fourth day, and after four weeks was dismissed from the hospital.

To improve our acupuncture anesthesia, our surgeons, who had been trained in western medicine, studied the basic theories of Chinese traditional medicine, pharmacology and acupuncture with doctors of traditional medicine, who demonstrated the needling on themselves. The surgeons also learned to give acupuncture treatment for postoperative pain. Every time a surgeon found an acupuncture point that produced a fairly good analgesic effect he would show it to the traditional doctors to add to their collection of already-known points.

At the same time the traditional doctors studied the western system

of anatomy and physiology with doctors of western medicine. By careful observations during the surgery, the doctors of traditional medicine weeded out those acupuncture points which were least effective and made adjustments in the degree of electrical stimulation. Thus, through coordinated efforts by doctors of both schools, the effectiveness of the acupuncture was increased considerably.

At the same time we improved our surgical equipment and procedures. To reduce bleeding and minimize irritation from electrocautery used to stop hemorrhage we give a hypodermic injection of saline solution with adrenaline at the site of incision. Veteran workers at the East Shanghai Shipyard — a unit with which we have a contract for medical care — improved the electric saw so that it could sever the breastbone in one minute.

In our early cases we had injected a small amount of local anesthesia at the time of the most painful processes such as cutting open the skin, severing the breastbone and suturing. After many kinds of improvements like the above, following our 89th case, we were able to do every case of surgery without using local anesthesia. We used only the painkiller Demerol. The patients said all they felt when the first incision was made was a sensation like the scratch of a needle down the chest, and during the actual surgery only a feeling of oppression, distension and numbness, which was not unbearable.

In our first few cases the patient lost consciousness for short periods or had spasms. We began to study the problem of adjusting the patient's blood pressure so as to increase the volume of blood flow to his brain. The conscious patients cooperated with us and helped us understand the actual changes in physiological functioning while the heart-lung machine is doing the work. For example, when we tried heating the blood to keep its temperature from dropping too much while outside the body, a patient told us that he had a feeling of discomfort as though he had drunk strong liquor. This was a very valuable piece of information that

we could not have obtained if the patient were under general anesthesia.

After taking measures to maintain a certain blood pressure so as to increase the amount of flow to the brain, we no longer had trouble with loss of consciousness and spasms. We also increased the time during which extracorporeal circulation could be carried on safely from 25 minutes to 121 minutes.

Encouraging Results

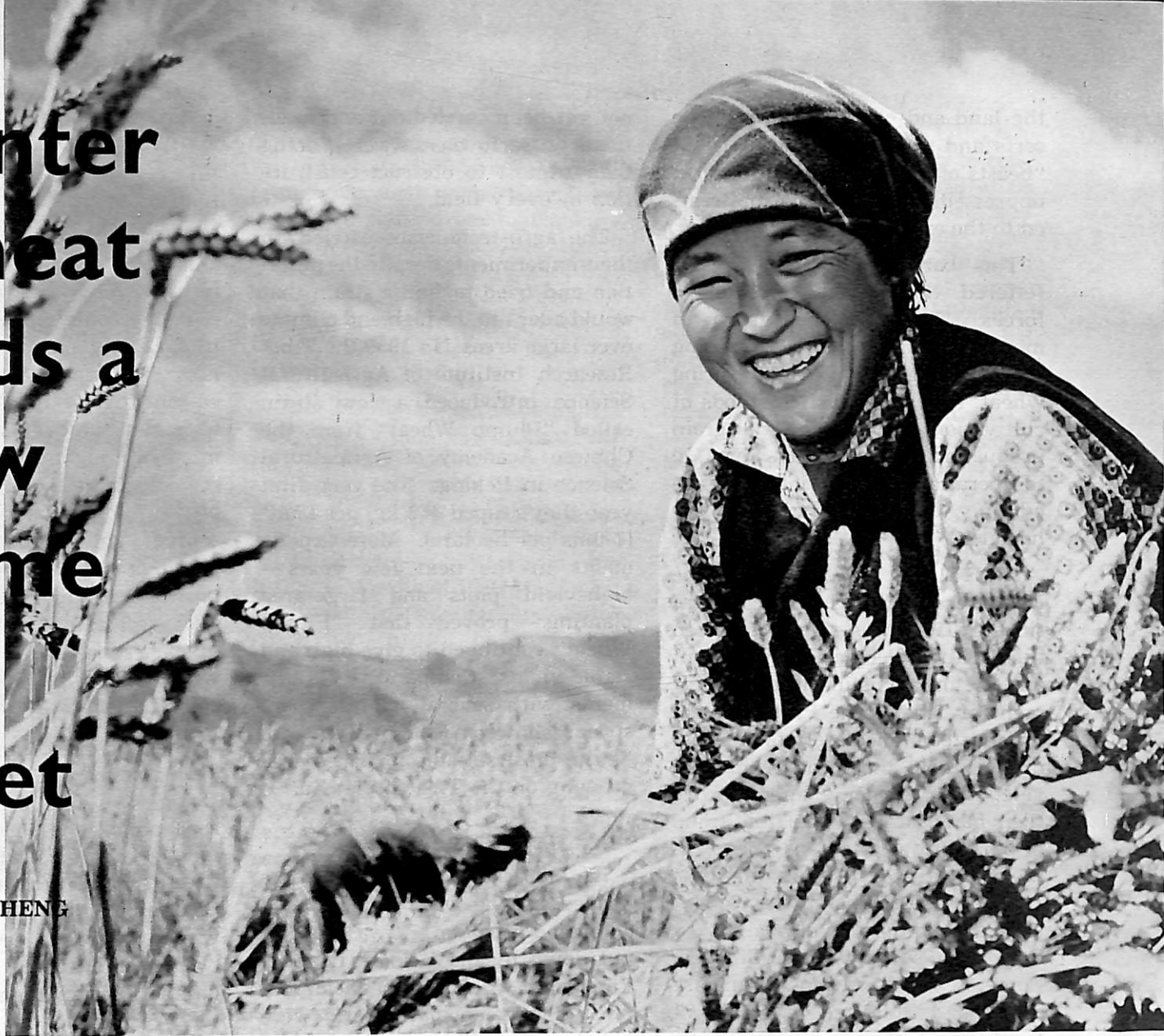
Our patients undergoing surgery with acupuncture anesthesia did not suffer from postoperative complications of the respiratory system or metabolic disorders and they recovered more quickly than those on whom general anesthesia was used. Our sixth case, 25-year-old Lu Pei-chun, was operated on in this way for an atrial septal defect of the heart in May 1972. Five months afterwards she returned to full-time work at her machine at the Shanghai Glove Factory. This March 8 she was one of the winners in the citywide International Working Women's Day long-distance race. Her weight has risen from 39 to 54 kilograms.

In June 1972, on 13-year-old Tu Yu-ping we did surgery for tetralogy of Fallot, one of the most complicated forms of congenital heart conditions involving four abnormalities. If she walked a bit she had to stop, panting. She would suffer palpitations and her lips would turn blue. Since the operation she has grown taller and sturdier. Three flights of stairs are no strain for her. Like other healthy children she takes part in athletics and labor at school. The success of these cases encourages us to further study how to improve the use of acupuncture anesthesia in open-heart surgery.

The past two years' practice has given us a preliminary understanding of acupuncture anesthesia applied to this field, but it is still a new thing and we still do not completely understand its scientific basis. Through further practice we hope to gradually grasp the underlying principles and thus help create a new Chinese school of medicine combining the traditional with the western.

Winter Wheat Finds a New Home in Tibet

CHIN CHIA-SHENG



Heavy grain heads in Tuilungteching county.

Harvesting winter wheat on the Tibetan highlands. It is now grown in many places there.



WINTER wheat is now being grown successfully over large areas on the "roof of the world" by Tibet's one million emancipated serfs. The breakdown of the idea that this crop could not grow at 4,000 meters above sea level has opened up broad prospects for Tibet's agriculture.

For centuries Tibet was a living hell. The feudal serf system kept the region extremely backward. Ninety-five percent of the population, the serfs and slaves, were dominated by the three types of estate-owners — the local government, the nobility and the monasteries — of which the Dalai Lama was chief. They owned all

CHIN CHIA-SHENG is a reporter for the Hsinhua News Agency.

the land and other property. The serfs and slaves were nothing but "beasts of burden who could talk", oppressed, exploited and maltreated to the extreme.

This barbarous system greatly fettered the region's productive forces. The only crops grown in most farming areas were spring *chingko* (highland barley), spring wheat, rape and peas. Methods of cultivation were rude and grain production was pitifully low. Up to liberation in 1951, yields averaged only 0.75 ton of *chingko* per hectare.

In 1951 the Agreement on the Measures for the Peaceful Liberation of Tibet was signed between the Central People's Government and the then-existing local government of Tibet. The Party Central Committee immediately took measures to help the local people develop their economy and improve their material life. The first group of agricultural scientists and technicians arrived in Tibet in June 1952 to make on-the-spot investigations. In nearly two years they made wide surveys in the Chamdo, Pome, Lhasa, Gyantse and Shigatse areas and collected volumes of firsthand materials on climate, soil, water conservation, farming and distribution of principal crops in these regions.

In many places they found no winter crops were grown. Those who investigated at Lhasa posed a question: Though 3,600 meters above sea level, Lhasa lies in a valley plain, has fertile soil, long daylight hours and strong sunlight. All this favors photosynthesis and plant absorption and accumulation of nutrients.

They began experimental growing of winter wheat in the fall of 1952 on the western outskirts of Lhasa. Experiments over several years proved that winter wheat not only grew well at this altitude, but yielded 60 percent higher per unit area than spring wheat harvested in the same year.

It was impossible to introduce winter wheat on a wide scale then because democratic reforms had

not yet been carried out and reactionary serfowners were doing their utmost to obstruct construction in every field.

The agro-technicians carried on their experiments despite the situation and tried to find a strain that would adapt to the highland climate over large areas. In 1959 the Tibet Research Institute of Agricultural Science introduced a new strain called "Plump Wheat" from the Chinese Academy of Agricultural Science in Peking. The very first year they reaped 466 kg. per *khal** (7 tons per hectare). More experiments in the next few years — high-yield plots and large-area planting — proved that "Plump Wheat" continued to give high and stable yields. Comparative experiments with several winter wheat strains showed "Plump Wheat" to be the most suitable for large-area growing on the Tibetan plateau.

Breakthrough

In 1959 reactionary serfowners headed by the Dalai Lama staged an armed rebellion. It was quickly put down by the Chinese People's Liberation Army and the local people. The emancipated serfs were led by the Chinese Communist Party to carry out democratic reforms. These began with reduction of land rents and interest on debts and went on to redistribution of land. They smashed the feudal serf system and for the first time set up their own people's power. The people who had lived under the whips of the serfowners became the masters of Tibet who could decide their own future.

In response to Chairman Mao's call to "get organized" and take the road of common prosperity, the peasants and herdsmen soon formed mutual-aid teams, finally 22,000 for farming and 4,000 for herding. In 1964 the peasants of Linchih and Tuilungteching counties began experimenting with winter wheat. They lacked experience and the mutual-aid teams were, after all, limited in strength, so they did not

* A *khal* is about one-fifteenth of a hectare.

do it over large areas and the yield was low.

In the Great Proletarian Cultural Revolution started and led by Chairman Mao, the Tibetan peasants and herdsmen saw more clearly that only a strong collective economy could move their agriculture rapidly out of its backwardness. Following the direction pointed out by Chairman Mao, they formed a number of people's communes throughout the autonomous region. The communes' large-scale organization, greater manpower resources and funds, and unified planning and management made it possible to popularize winter wheat over large areas. A mass campaign quickly spread to "grow more winter wheat and make a greater contribution to the country".

The land of Drongpa township in Jiacha county on the Yalutsangpo River was stony. The people never reaped more than 50 kg. of *chingko* from a *khal* (0.75 ton per hectare). In 1970 the Vanguard People's Commune there tried growing winter wheat. A few people said, "Whoever heard of growing crops on the Tibetan highlands in winter?" But the majority of the commune members said, "Let's do it. We'll get for ourselves what our ancestors never had before. With the Communist Party leading us, as long as we dare to think and act, we can do great things."

That fall they planted 12 hectares of winter wheat, and with good management harvested 4 tons per hectare, 0.1 ton more than of either spring *chingko* or spring wheat. The elated commune members were ready to try for more.

In the winter of 1971 they made basic improvements on their land, collected fertilizer and reconstructed a 5-km. irrigation canal to expand the irrigated area. In 1973 they reaped an average of 4.6 tons per hectare over 82 hectares of winter wheat, almost twice the yield of that year's spring wheat. Successive good harvests of winter wheat have made the commune more than self-sufficient in grain for the first time. Besides a collective



Selecting good strains of seed from Penbo farm's 1,800 hectares of winter wheat.

reserve of 50 tons, each family has surplus grain at home.

Similar changes took place in other districts and communes on the plateau.

In the course of popularizing winter wheat, members of the Tibet Research Institute of Agricultural Science did a lot of work at the grassroots level. Those making their base at Yangta commune, Tuilungteching county, are an example. First they explained to the masses the advantage of scientific farming and what growing winter wheat meant in developing their agriculture. Then they joined the commune experimental group in field work, at the same time giving technical guidance. Through forums and investigations they regularly summed up the experience of the masses.

With their help the Yangta commune has been expanding its winter wheat area every year, reaching 73 hectares in 1973, 11 times that of 1970, the first year of the experiment.

Advancing Together

The Army Production and Construction Corps in Tibet also did a lot of work to promote winter

wheat. The Penbo farm it administers lies 3,800 meters above sea level on the upper Lhasa River. Most of the workers were Tibetan peasants who had only experience in growing spring *chingko*. But when they heard that other farms and regiments of the corps had succeeded in growing winter wheat over large areas, they were eager to try too. "If the other farms and regiments can do it, we can too," said squad leader Dawa, a former slave.

An experimental group headed by Dawa planted seed on 3 hectares in the fall of 1966. They spread the fields with a mixture of horse dung, sheep droppings and wood ash, which helped keep the soil warm longer. When the shoots showed signs of turning yellow in the autumn dry season, they fetched water, bucket by bucket. To prevent the shoots from dying in the cracked frozen soil of winter, they loosed the soil with rakes and then ran stone rollers over it. With this intensive care they reaped more than 5 tons per hectare.

The farm Party committee promoted their methods throughout the farm. In 1972 the farm sowed 1,800 hectares to winter wheat and

the next year harvested 9,000 tons, three and a half times that in the farm's early days.

Penbo's success was big news to neighboring communes. When their members came to the farm to visit friends or relatives, they would rein in their horses as they passed the green fields and exclaim, "You have to see them to believe such beautiful shoots in this cold weather!" In the fall they were impressed by the heavy golden heads of ripe wheat.

They went home and returned with bags of *chingko* to exchange for wheat seed. They asked the farm workers how wheat was planted and went back and did as they were told. At such enthusiasm, the farm decided to send over men to help. When Changto commune needed technical advice on winter irrigation, the farm sent their own experts Loyar and Dawa. It has also been supplying some communes with good strains of seed for several years running.

Today winter wheat is grown in most of Tibet's farming counties. The area sown to it in 1973 doubled that for 1972. Winter wheat has made itself at home on the Tibetan highlands.



New Commune Members on Maochiashan Hill

Staff Reporter

FROM the county town of Pinglu in Shansi province a new highway winds for 20 kilometers through loess hills to Maochiashan, a small village nestled in the Chungtiao Mountains. The approach to the village is heralded by high-tension wires outlining the crests of the mountains, slopes thickly covered with walnut and apple trees, and an East Is Red tractor plowing terraced fields just cleared of wheat. At the entrance to Maochiashan Village, on the face of an earthen mound are written huge characters reading "Broad Horizons, A Great Future".

On the two threshing grounds electrically-powered threshers whirred. Every available space was piled with newly cut plump golden wheat. This year's winter wheat alone yielded more than a whole year's total grain harvest before the cultural revolution. With an air of satisfaction, commune members were storing away the Maochiashan production team's biggest harvest in history. Among them were a number of young men and women.

"We wouldn't have changed so fast if it hadn't been for those

youngsters from Tientsin," observed an old peasant named Mao Hsing-tang with a broad smile.

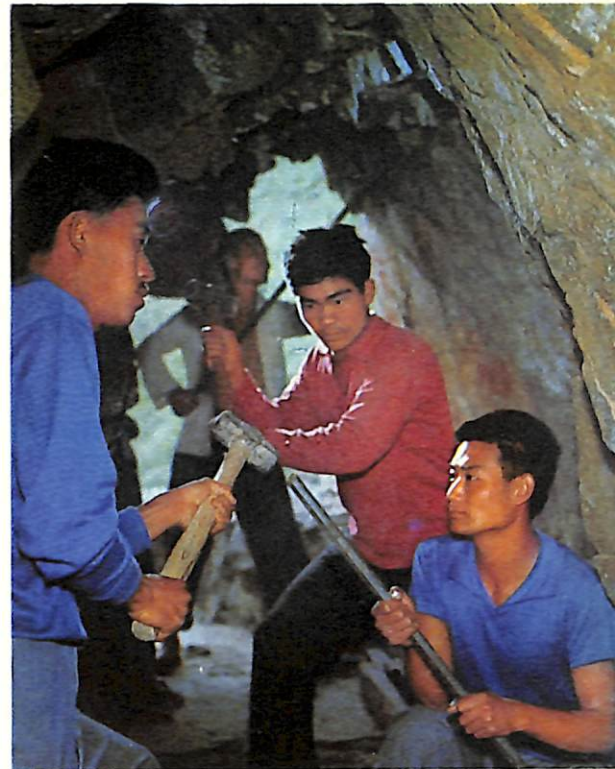
The Hardest Place

In the winter of 1968, in the midst of the Great Proletarian Cultural Revolution, a hot debate raged among the students at the Wantou Middle School in the coastal city of Tientsin over what to do after graduation. Back and forth the young people who had been steeled in the cultural revolution discussed what Chairman Mao had said in *The Orientation of the*



Building Tachai-style terrace fields.

Poor and lower-middle peasants help the students build their new cave-homes.



Building an irrigation channel on Black Ox Mountain.

Youth Movement: "How should we judge whether a youth is a revolutionary? How can we tell? There can only be one criterion, namely, whether or not he is willing to integrate himself with the broad masses of workers and peasants and does so in practice."

Chu Chin-yi, a 17-year-old Red Guard newly elected to the school revolutionary committee's standing committee, and six others put up a big-character poster proposing that graduates go to backward places in the countryside to help build them up and, in the course of integrating with the workers and peasants, steel and temper themselves to carry on the revolutionary cause of the proletariat.

Twenty-three others responded. Having heard that young people with education were willing to go to the countryside, two representatives from Pinglu county then in Tientsin requested that they come to their place. The Wantou graduates finally decided to go to Maochiashan, a remote village in Pinglu county. They also decided to walk the 1,000 kilometers from Tientsin to Pinglu in the spirit of the Red Army on its Long March forty years ago. They called themselves the Long Marchers.

Twenty days later, on the evening of December 21, a new instruction in the cultural revolution was issued by Chairman Mao: "It is highly necessary for young people with education to go to the countryside to be re-educated by the poor and lower-middle peasants." The whole school buzzed with excitement. "Chairman Mao knew just what was on our minds! With his backing, we'll stick to our resolve," the students said.

Five days later the Long Marchers set out. Under a cloudless sky a hundred thousand people turned out and lined the streets to send them off—20 boys and 10 girls, their legs wound in puttees, red paper flowers pinned to their chests, a sickle stuck beneath the straps of the bedrolls on their backs, marching behind a red flag presented to them by the Communist Party committee in their local district. Its secretary, a veteran of the Long March, walked with them to the city limits.

In wind and snow the 30 young people crossed the great Hopei plain, scaled the Taihang Mountains and trekked across the hilly region of southern Shansi.

On the way they stopped at the Tachai production brigade in eastern Shansi, a national model in agriculture, and were taken around the mountains to see how the people of Tachai through their own efforts had turned a poor area of eroded gullies into a prospering socialist countryside. "We'll learn from them and build up our new home in the Chungtiao Mountains like Tachai," the graduates vowed.



On the long march from Tientsin to Maochiashan.

Fifty-one days after leaving Tientsin, on the eve of the Spring Festival, they arrived at Maochiashan. They were given a rousing greeting with drums, gongs and firecrackers. In spite of the knee-deep snow, the whole village turned out to welcome them.

The young people rushed up to the villagers. "We're going to make this our home," they said. They did not even stop to take a rest on the warm kang or eat the steamed bread or crullers set out for them, but picked up brooms to sweep away snow and shoulder poles to fetch water for the vil-

lagers. On the fourth day they joined the commune members at work.

Learning about Class Struggle

The sudden addition of 30 young people brought new life to tiny Maochiashan, population 150. Mao Hsing-tang, leader of the team's poor peasant association, took his responsibility for guiding the young people seriously. "The state is entrusting us poor and lower-middle peasants with their care," he said. "We must bring them up like our own sons and daughters so that they will carry on the revolutionary cause." Mao was appointed head of the group which would give the young people political leadership, teach them labor skills and look after their needs for everyday life.

The poor and lower-middle peasants' first concern was to enable the newcomers to stand firm in the class struggle in the countryside. At a meeting arranged especially for them, they heard the history of Maochiashan before liberation, a story of blood and tears. Several of the 28 families of poor and lower-middle peasants had come from other places, driven by famine and hunger. Two landlords in the area extorted exorbitant rent and interest from the people and swindled them at every turn. By the time of liberation they had grabbed 80 hectares of land of this and 13 surrounding villages.

The young people visited the homes of each of the 28 families of poor and lower-middle peasants.

Li Hsin-yu, an old peasant, began working for landlords at the age of six. He had known the feel of the whiplash and had been bitten more than once by landlords' dogs. With Mao Hsing-tang he organized the village's first mutual-aid team and later the first agricultural producers' co-op and led in developing a collective economy ever since. He took the young people to the village entrance where four big willows stand. "These trees are a symbol of the collective road we've taken. We planted them in 1953 to mark the formation of the co-op. Now I may be getting on in years, but

my heart is young still and I'm going to try and keep up with you."

The young people were stirred by the poor and lower-middle peasants' expression of hatred for the old society and love for the new. They developed a deep feeling for Maochiashan which drew them closer to the poor and lower-middle peasants and enabled them to see things more clearly. As the cultural revolution proceeded they joined the poor and lower-middle peasants in exposing what the former landlords and rich peasants were doing to disrupt collective production—how the latter had tried to corrupt cadres with small economic bait and steal collective properties.

Their firm stand in class struggles and good work in collective labor earned the young people the trust of the commune members. Three were chosen to join the production team's leading group. "Do a good job," said one of the poor peasants. "We trust you and will help you."

Building Up the Area

Maochiashan, made up of seven ravines, eight slopes and three ridges, was once described by the verse:

Strong winds, deep gullies, many stones;

When you go out you have to go either uphill or downhill.

Big drought nine years out of ten,

From a mu a measly hundred jin.

To change the place quickly would be a tremendous job.

The young graduates thought of the Tachai they had seen and their own vow to make their new home another Tachai. With the team cadres and experienced peasants they walked up and down the surrounding mountains, investigating soil and water sources, making a map of Maochiashan's physical features and drawing up a ten-year plan for construction.

At their suggestion and backed by the brigade Party branch, Maochiashan began building terraced fields in the winter of 1970. Everybody turned out to level the slopes,



Under the "co-op willows" Li Hsin-yu tells the young people about the bitter life in the old society.

bring in earth and erect embankments. The ground was frozen a foot deep. A swing of the pick left only a white dot. But they kept at it and by spring had finished a staircase of fields which they named Sunny Slope, the first victory in rearranging nature's pattern at Maochiashan.

The village could only be reached by narrow trails winding up and down steep slopes. For years the commune members had wanted to build a road wide enough to bring up tractors. Now the school graduates pushed the project. Led by the brigade Party branch, both new and old commune members went into action. The young people learned surveying through practice, made their own dynamite and vied for the more dangerous jobs like drilling dynamite holes and detonating the explosives. In twenty-some days they levelled four small slopes and built a wide road. For the first time East Is Red tractors chugged up to Maochiashan.

Lack of water was another problem. The only source was a spring in the ravine and the water had to be carried up the mountains in buckets on shoulder poles. In the spring of 1971 the Party branch proposed building a canal to bring the water up to the mountains. This meant damming the spring in its upper reaches, tunneling through a mountain and carving out a channel that wound through a range.

Again the young graduates took on the hardest jobs. Workers near-

by came to help. Two winters later, clear water flowed into Maochiashan's four hectares of wheat fields through 2,400 meters of mountainside waterways and a 367-meter tunnel. Soon more than half of the team's dry slopes would be brought under irrigation to ensure good crops in all weather.

Scientific Farming

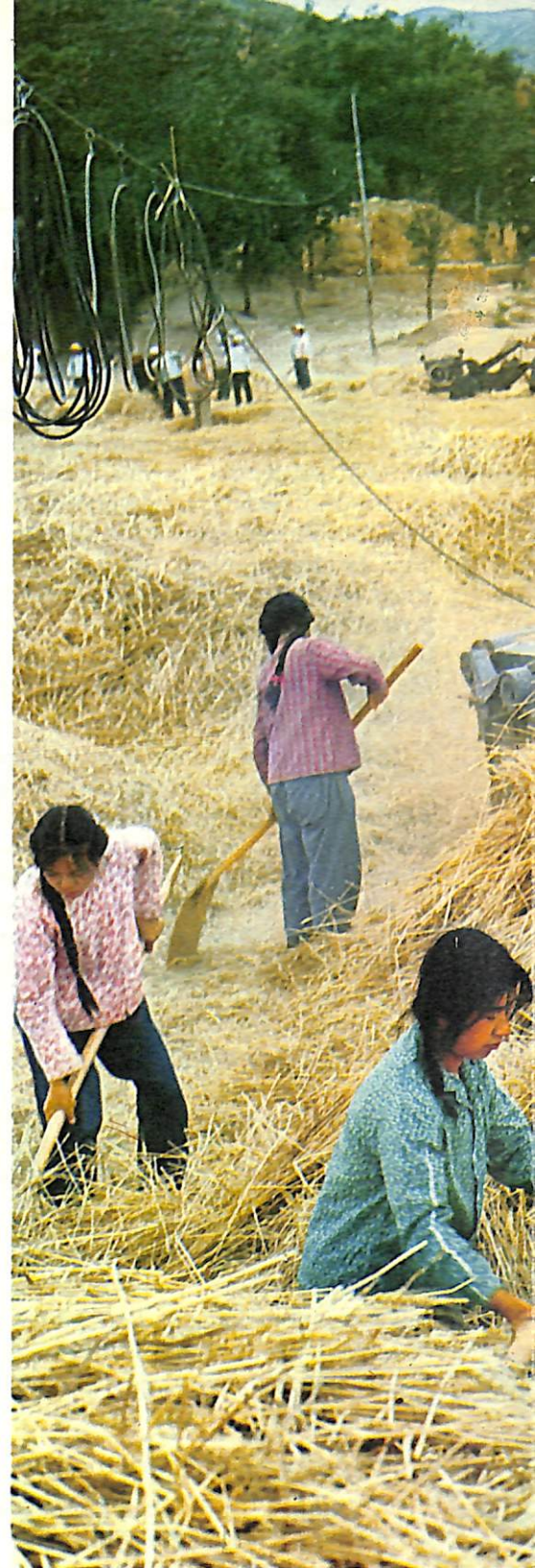
The changes wrought by these projects showed the people of Maochiashan that their collective strength could do even grander things than they had thought. They were eager to do more. When workers came to set up high-tension wires, the school graduates were eager apprentices. Now electric motors drive the machines for milling flour, cutting fodder and ginning cotton. All homes have electric lighting.

One of the questions that had occupied the young people's minds since they came was how to increase grain production. It had risen very slowly because of backward farming methods. The key was raising the yield per unit area, and scientific farming was the answer. They read volumes of agricultural science books and made frequent trips to commune and county technical promotion stations to seek advice.

The first winter of their stay they visited the Kuochiashan brigade to find out how it achieved high yields of corn. They found this brigade sowed their corn in shallow basins dug in the field and filled with fertilizer. This gave



Talks with Uncle Mao help the young people understand why they should sink deep roots in the countryside.



Wang Yen-ting (center) and other members of the Iron Girls' team manure a field after wheat harvest.

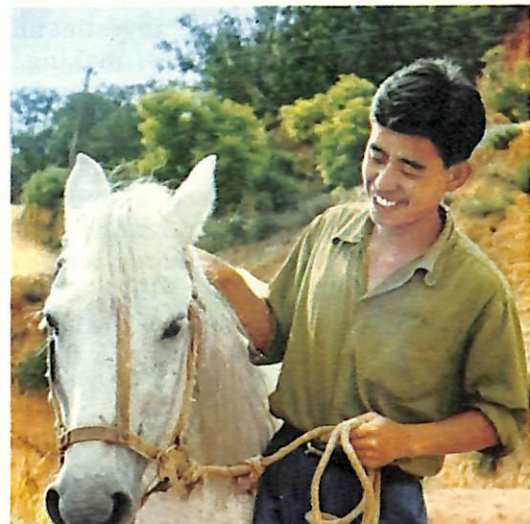
Li Chiu-feng making bacterial fertilizer No. 5406.



Ting Kuei-jung (right) with others in the young people's own experimental farm.



Stockman Sung Chu-pao.





Sung Chun-yuan (right front) and other commune members feed wheat into a thresher run by electricity.



Study.

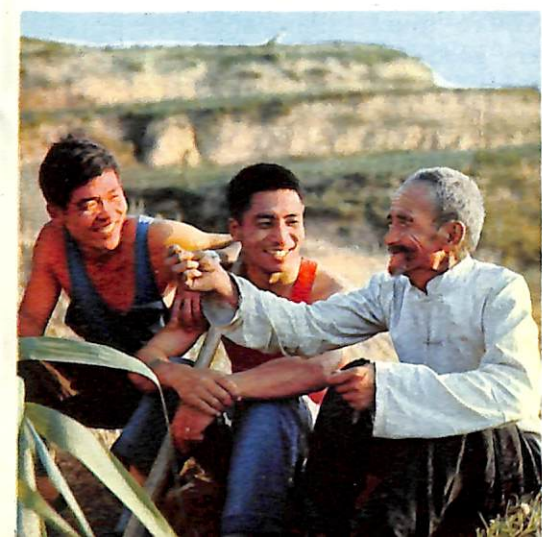


Tsao Chin-ling (right) and friend learn how to make cloth shoe soles from Aunt Chin.



A poor peasant gives the young people pointers on how to care for maize.

Uncle Ching's approval of the change in the village since the young people came brings a grin to the faces of Chu Chin-yi and Chen Sheng-li.



Training on the home-made parallel bars.



After work.



the shoots a greater concentration of fertilizer and conserved moisture. Because there were three corn plants per basin, this achieved the same effect as close planting. The result was much higher yields.

They returned and proposed doing the same. Some peasants were afraid the plants would be too close together and would not grow well. But Mao Hsing-tang and some other older peasants said, "The youngsters want to try scientific farming. Let's give them our support."

The school graduates pit-seeded corn on one hectare of land and gave it intensive care. The old peasants often came and helped with weeding and killing insect pests. The per-unit-area yield from this plot was one-third higher than on the other fields.

"I'm won over to scientific farming," announced team leader Liang Sheng-wa. "To expand our production we need just this kind of daring to try new things."

Pit-seeding was adopted throughout Maochiashan the next year.

Encouraged by their success, the new commune members opened an experimental plot and tried out more than twenty new strains of wheat which they got from the county seed promotion station. After three years of experimental planting they were able to select the high-yield strain most suitable for Maochiashan. It was introduced throughout the team.

In the spring of 1973 two of the young people took a short course in the county town on the cultivation of 5406 bacterial fertilizer. Returning, they decided to make this fertilizer in time for the October sowing of winter wheat. Using a big cave as their laboratory they watched over their tests day and night. In two months they made 10 tons of this high-quality bacterial fertilizer.

Grain production had risen steadily since 1968. The 1971 harvest doubled that of 1968, and in the last two years the per-unit-area yield of wheat had increased at a rate of 30 percent per year.

Maturing Ideologically

The newcomers started out not knowing the crop from the weeds and sometimes pulled up good plants instead of weeds. But with help from the commune members they soon became competent farmers, some specializing in plowing and sowing, others in managing orchards or operating machinery. Some became carpenters, blacksmiths, electricians, stockmen or barefoot doctors.

Pigtailed 21-year-old Wang Yen-ting is leader of the Iron Girls' Team and is praised for being a "good farm hand". Her maturing is an example of how the young people are helped by the poor and lower-middle peasants to get rid of some of their petty bourgeois fanaticism and lack of firmness and develop a down-to-earth attitude in serving the people.

Wang Yen-ting came to Maochiashan with dreams of creating a brave new world with her own spectacular deeds. She found working the land dull and unexciting. Then she heard that a big factory was under construction in a county 100 kilometers away. Here was a chance to do something big and exciting, she felt, even though she knew life on the worksite would be hard. One night while the others were asleep, she and another girl slipped away with their bedrolls and shovels, leaving a note which said: "When you see this we'll be far, far away. Don't try to find us. We'll be at the worksite in Chianghsien county. . . ." With the letter was a drawing of two tiny figures on a peak with shovels over their shoulders, pointing at groups of people and fluttering red flags below them.

Two days later their schoolmates arrived at the worksite to urge them to return. When they got back, old Mao Hsing-tang sought out Yen-ting, "We need you here, Yen-ting," he said. "Before liberation only the children of landlords and rich peasants went to school. With no education, we poor and lower-middle peasants had a lot of difficulties in the early days of our mutual-aid teams and the co-op. Things were a little better in recent years, but we had been hoping Chairman Mao would send us more

young people with education. Now that you are here we hope you will really settle in. We need you for a lot of work. When you make revolution you must plant your feet firmly on the ground."

With help from the poor and lower-middle peasants Wang Yen-ting's thinking continued to change. At Maochiashan women never entered the barnyard because superstition had it that it would cause both people and animals to fall sick. When the team began building terraced fields, Wang Yen-ting volunteered to look after the oxen so that the strong men could take part in the terracing.

In the barnyard full of dung and puddles, even though she had gone back for her rubbers, she picked her way about on her toes. Veteran stockman Mao Lin-wa smiled. "Farmers can't be afraid of getting dirty. This place just isn't the same as the city."

Wang Yen-ting was taken aback. Why wasn't the old stockman afraid of getting dirty? Didn't it show that she was afraid of hardship and lacked the feelings of the working people? I must learn from the poor and lower-middle peasants and remold my ideology, she told herself. Watching how the stockman went about his work, she too began to do things with alacrity.

When the time came to haul water for the oxen, it was raining and the road was wet and slippery. Yen-ting looked at the sky and wondered what she should do. Then she saw the old stockman coming toward her, mud-spattered and panting, with two buckets of water swinging from his shoulder pole. She felt blood rush up to her cheeks. "I shouldn't let you do this, Uncle," she said as she went up and took the buckets from him. "You're much older and not in very good health."

"That's all right. We mustn't let the oxen go thirsty. The road is bad and you don't know how to do it. I was coming over anyway."

Yen-ting took the shoulder pole from the old man, went down the mountain and brought up several more buckets of water. Under the

stockman's influence Wang Yen-ting learned to do the hard jobs. She kept the barn spick and span and cut the fodder grass as fine as it could be. She read up on animal raising and constantly looked for ways to improve her work. Under her care the fourteen oxen grew strong and sleek. She was cited a model animal keeper for the whole commune.

Striking Roots

Like saplings growing up in wind and rain the young people began to thrust out roots in Mao-chiashan. They developed a love for their new home and received the name of "our good commune members" from the poor and lower-middle peasants.

Chang Chen-chung always did the heaviest and hardest work, and spent his rest time carrying water or collecting firewood for the commune members. Year before last he was chosen by the poor and lower-middle peasants to join the army. At the send-off meeting held for him by the production team, he said, "The poor and lower-middle peasants of Maochiashan educated me and now they have given me the honor of choosing me to serve in the army. Now Maochiashan is my home. I'll be back after I complete my term of service."

He turned his savings over to the team to add to the production fund. With the money they bought 500 apple saplings and planted them on a slope behind the village, naming the place "Deep Roots Orchard". The trees are growing sturdily.

As socialist revolution and construction proceeded, some of the young people were transferred to factories, some were chosen to go to college or the army. Those who stayed behind worked on in high spirits. Quite a few have been elected cadres in the team, brigade, commune or county.

Chu Chin-yi, leader of the Long Marchers, is now a vice-secretary of the Youth League Committee of Pinglu county. Ting Kwei-jung, a girl student and political director of the Long Marchers, is a vice-secretary of the Maoshan brigade

CHINESE MEDICAL JOURNAL

(Bimonthly in English)

Beginning in 1975 the Chinese Medical Association will publish an advanced, comprehensive professional medical journal in English. It will introduce China's policy in various aspects of health work. In an effort to promote academic exchange between China and other countries and to serve the people the world over, it will carry reports on China's achievements in the health and medical fields and progress in related scientific research. Each issue will have 64 pages and six pages of illustrations.

25.8 × 18.6 cm.

Orders for subscriptions to all parts of the world are now being accepted. Published by the Chinese Medical Association, Peking, China.

Distributed by **GUOZI SHUDIAN** (China Publications Center), Peking, China.

Order from your local dealer or write direct to the **GUOZI SHUDIAN**, P.O. Box 399, Peking, China.

Currency	Single	Ordinary Mail one year	Airmail one year
US\$	1.60	9.60	18.60
£	0.65	3.90	7.80
DM	4.00	24.00	50.00
F.Fr.	8.00	48.00	89.00
Yen	450	2700	5100
Col.\$	35	210	410
CFA.Fr.	350	2100	4160

Party branch. Sung Chun-yuan, deputy leader of the Long Marchers, heads the Maochiashan production team. Hao Kuang-chieh, the young teacher who escorted the Long Marchers to Maochiashan, now makes his permanent home there and is a vice-secretary of the Pinglu county Party committee.

"The youngsters have matured," say the poor and lower-middle peasants. "With them carrying on our work, we have no worries."

Looking back at their five years in the countryside the graduates say, "There is no limit to the things we can learn and do here. Maochiashan has grown and changed, and so have we."

In the movement to criticize Lin Piao and Confucius, from their own experience they criticized Lin Piao's use of Confucius' idea to restrain oneself and return to the old scheme of things in order to restore capitalism. "Chairman Mao pointed out the road of integrating with the workers and peasants," they say. "This is the orientation

for us young people. Confucius said, 'Farm, and hunger will be found therein. Study, and officialdom will be found therein.' He was saying that farming kept one a slave destined to suffer, that only going to school could make one a high official with high pay.

"Lin Piao also said that graduates going to the countryside was 'a disguised form of reform through forced labor'. Our five years at Maochiashan give the lie to Confucius and Lin Piao. We have found that for graduates to go to the rural and mountain areas and become workers with socialist consciousness and culture is not a matter of 'wasting your talent' or 'no future'. Rather, we have a great future. Lin Piao was trying to lead us onto the revisionist road, hoping to see capitalism restored by our generation. The march of history has smashed the class enemy's dreams. The countryside needs us. We need the countryside even more. We intend to devote our lives to making revolution and building socialism in the countryside."

Lesson 10

祖国处处有亲人 (小话剧)

Zǔguó Chùchù Yǒu Qīnrén (Xiǎo Huàjù)

Kith and Kin Are Everywhere in Our Land (A Short Play)

人物: 赵 大娘, 六十五岁

Rénwù: Zhào dàniáng, liùshiwūsui
Characters: Zhao Aunt, 65 years (old)

老 谢 (男), 铁路 工人

Lǎo Xiè (nán), tiělù gōngren
Old Xie (male), railway worker

于 丽, 老 谢 的 爱人

Yú Lì, Lǎo Xiè de àiren
Yu Li, Old Xie's wife

张 同志 (男), 解放 军

Zhāng tóngzhi (nán), Jiěfàngjūn
Zhang Comrade (male), Liberation Army (man)

第一景 地点: 郑州 火车站 站台。

Dìyī jǐng dìdiǎn: Zhèngzhōu huǒchēzhàn zhàntái.
First Scene. Place: Chengchow railway station platform.(幕 开 时 下 车 的 旅 客 都 已 走 出 站 台; 赵 大 娘 着 急 地
(Mù kāi shí xià chē de lǚkè dōu yì zǒuchū zhàntái; Zhào dàniáng zháojide
(Curtain opens time get off train's passengers all already gone off platform; Zhao Aunt anxiously

翻 着 身 上 的 每 个 口 袋。)

fānzhe shēnshàng de měige kǒudài.)
turns (inside out) body's every pocket.)

赵: (自言自语) 唉! 怎么 没 了?

Zhào: (ziyányǔ) Ai! Zěnme méi le?
Zhao: (To herself.) Oh! How have not?

(谢 上)

(Xiè shàng)
(Xie enters)

谢: 大 娘, 您 找 什 么 呀?

Xiè: Dàniáng, nín zhǎo shénme ya?
Xie: Aunt, you look for what?

赵: 我 大 儿 子 的 地 址 找 不 着 了。

Zhào: Wǒ dà érzi de dìzhǐ zhǎo bù zhǎo le.
Zhao: My oldest son's address seek not find.

谢: 您 儿 子 在 哪 儿 工 作?

Xiè: Nín érzi zài nǎr gōngzuò?
Xie: Your son at where works?

赵: 他 是 解 放 军, 叫 赵 志 国。 他 们 部 队 就 在 郑 州。 地 址 上

Zhào: Tā shì Jiěfàngjūn, jiào Zhào Zhìguó. Tāmen bùduì jiù zài Zhèngzhōu. Dìzhǐshàng
Zhao: He is (a) Liberation Army (man), named Zhao Zhiguo. Their unit at Chengchow. Address on

本 来 写 得 很 清 楚。 不 是 买 车 票 的 时 候 没 装 好, 就 是

běnlái xiě de hěn qīngchū. Búshì mǎi chēpiào de shíhou méi zhuānghǎo, jiùshì
originally written very clearly. (If it) was not buying train ticket time not pocket (it) well, then was

半 路 上 弄 丢 了。 这 可 怎 么 办 呀?

bànlù shàng nòngdiū le. Zhè kě zěnmébàn ya?
halfway on (I) lost (it). This what to do?

谢: 大 娘, 您 别 着 急。 先 到 我 家 去 休 息 休 息, 我 想 办 法

Xiè: Dàniáng, nín bié zháojī. Xiān dào wǒ jiā qu xiūxiūxi, wǒ xiǎng bànfa
Xie: Aunt, you don't worry. First to my home go rest a while, I think (of) way

给 您 找。

gěi nín zhǎo.
for you seek

赵: 谢 谢 你。

Zhào: Xièxiè nǐ.
Zhao: Thank you.

第二景 地点：老谢同志家。

Dì'èr jǐng dìdiǎn: Lǎo Xiè tóngzhì jiā.
Second Scene. Place: Old Xie Comrade's home.

(幕开时于丽正在收拾屋子。老谢、赵大娘上)

(Mù kāi shí Yú Lì zhèngzài shōushì wūzi. Lǎo Xiè, Zhào dàniáng shàng)
(Curtain opens time Yu Li is tidying up house. Old Xie, Zhao Aunt enter.)

谢：大娘，这是我爱人。(对于丽)这位赵大娘是来这儿看
Xiè: Dàniáng, zhè shì wǒ àiren. (Duì Yú Lì) Zhèwèi Zhào dàniáng shì lái zhèr kàn
Xie: Aunt, this is my wife. (To Yu Li.) This Zhao Aunt came here see (her)

儿子的，可是地址丢了，先让大娘在咱们家休息休息，我
érzi de, kěshì dìzhǐ diū le, xiān ràng dàniáng zài zánmen jiā xiūxiūxiūxiū, wǒ
son, but address (is) lost. First let Aunt at our home rest a while, I

去给联系联系。(下)

qù gěi liánxi liánxi. (xià)
go for (her) make connection. (Exit.)

于：(倒茶)大娘，别着急，能找着。您喝一杯茶，我去给
Yú: (Dào chá) Dàniáng, bié zhāojí, néng zhǎozháo. Nín hē bēi chá, wǒ qù gěi
Yu: (Pouring tea.) Aunt, don't worry, (your son) can (be) found. You drink (a) cup (of) tea, I go for

您做点儿吃的。

nín zuò diǎnr chī de.
you make a bit (to) eat.

赵：这么麻烦你们，真过意不去。

Zhào: Zhème máfan nimen, zhēn guòyì bú qù.
Zhao: So much trouble (for) you, (I) really feel not (at) ease.

于：您别这么说，您这么大年纪，出门在外，帮您办
Yú: Nín bié zhème shuō, nín zhème dà niánjì, chū mén zài wài, bāng nín bàn
Yu: You don't like that talk, you so great age, go out door (and) at outside, help you do

点儿事，是应该的。即使一时找不着，在这儿住几天
diǎnr shì, shì yīnggāi de. Jìshǐ yíshí zhǎo bù zháo, zài zhèr zhù jǐtiān
a bit (of) business, (this) is (what we) should (do). Even if (for) a time seek not find, at here (you) stay several days

也没关系。

yě méi guānxi.
also doesn't matter.

第三景 地点：同上。时间：当天傍晚。

Dìsān jǐng dìdiǎn: Tóng shàng. Shíjiān: Dāngtiān bàngwǎn.
Third Scene. Place: Same as above. Time: That day evening.

(幕开时赵大娘在床上坐着。老谢和张同志上。)

(Mù kāi shí Zhào dàniáng zài chuángshàng zuòzhe. Lǎo Xiè hé Zhāng tóngzhì shàng.)
(Curtain opens time Zhao Aunt at bed on sitting. Old Xie and Zhang Comrade enter.)

谢：大娘，赵志国同志我们找到了。

Xiè: Dàniáng, Zhào Zhiguó tóngzhì wǒmen zhǎodào le.
Xie: Aunt, Zhao Zhiguo Comrade we have found.

赵：(忙说)他来了?

Zhào: (Máng shuō) Tā lái le?
Zhao: (Hurriedly speaks.) He has come?

谢：没有。这位同志是咱们市里的部队的。我把您的
Xiè: Méiyǒu. Zhèwèi tóngzhì shì zánmen shìlǐ de bùduì de. Wǒ bǎ nín de
Xie: No. This comrade is (from) our city's (army) unit. I your

情况告诉了他们，他们在部队里查了半天，可是没有一个人
qíngkuàng gàosu le tāmen, tāmen zài bùduìlǐ chá le bàn tiān, kěshì méi yǒu yíge rén
situation told them, they at unit in searched half day, but not have one man

叫赵志国，又和郊区的一个部队联系，才找着。

jiào Zhào Zhiguó, yòu hé jiāoqū de yíge bùduì liánxi, cái zhǎozháo.
named Zhao Zhiguo. Also with suburb's one unit connected, only then found (him).

赵：这太好了。

Zhào: Zhè tài hǎo le.
Zhao: This extremely good.

张：大娘，我们部队领导特地派了汽车，让我送您到郊区的

Zhāng: Dàniáng, wǒmen bùduì lǐngdǎo tèdì pài le qìchē, ràng wǒ sòng nín dào jiāoqū de
Zhang: Aunt, our unit's leadership especially sent car, asked me take you to suburb's

部队去。如果您准备好了，咱们马上就动身。我们已经通知赵志国同志，让他在那儿等您了。

bùduì qu. Rúguó nín zhǔnbèihǎo le, zánmen mǎshàng jiù dòngshēn. Wǒmen yǐjīng tōngzhī Zhào Zhíguó
unit. If you are ready, we at once start out. We already notified Zhao Zhiguo

tóngzhì, ràng tā zài nàr děng nín le.
Comrade, asked him at there wait for you.

赵：这……

Zhào: Zhè.....

Zhao: This....

张：这是应该的。尽管志国同志不在我们连队，我们也有责任照顾您。

Zhāng: Zhè shì yīnggāi de. Jǐnguǎn Zhíguó tóngzhì bú zài wǒmen liánduì, wǒmen yě yǒu zérèn zhàogù nín.
Zhang: This is (what we) should (do). Even though Zhiguo Comrade (is) not at our company, we also have responsibility (to) take care of you.

赵：你们可都太好了。只有在新社会，才会有这样的事。

Zhào: Nǐmen kě dōu tài hǎo le. Zhǐyǒu zài xīn shèhuì, cái huì yǒu zhèyàng de shì.
Zhao: You all extremely good. Only at new society, can have such thing.

真是祖国处处有亲人啊！

Zhēn shì zǔguó chùchù yǒu qīnrén a!
(It) truly is (that in) motherland everywhere are kith and kin!

(幕落)
(Mù luò)
(Curtain falls)

Notes

Conjunctions are frequently used in pairs in Chinese. In this lesson we study some new pairs.

1. **Búshì... érshì...** 不是……而是…… Here 而 indicates a change and may be omitted. For example, **Jīnnián zhèr de màizǐ, búshì yībān de hǎo shōuchéng, érshì tè dà de fēngshōu** 今年这儿的麦子，不是一般的好收成，而是特大的丰收 (This year the wheat here is no ordinary good harvest but an exceptional bumper harvest).

2. **Búshì... jiùshì...** 不是……就是…… generally indicates there are just two possibilities, as in **Búshì méiyǒu zhuānghǎo, jiùshì nòngdiū le** 不是没有装好，就是弄丢了 (Either I didn't pocket it properly or I lost it).

3. **Jíshǐ... yě...** 即使……也…… 即使 indicates supposition, as in **Jíshǐ yíshí zhǎo bù zhǎo, zài zhèr zhù jǐtiān, yě méi guānxi** 即使一时找不着，在这儿住几天，也没关系 (Even if we can't find him right away, you can stay here for a few days).

4. **Zhǐyǒu... cái...** 只有……才…… 只有 emphasizes a necessary condition. 才 is often followed by auxiliary verbs such as 能, 会 or 可以, as in **Zhǐyǒu zài xīn shèhuì, cái huì yǒu zhèyàng de shì** 只有在新社会，才会有这样的事 (Something like this could only happen in the new society). 只有 can also be used alone before the last part of the sentence, as in **Yào xiǎng zuòhǎo zhège gōngzuò, zhǐyǒu fādòng qúnzhòng** 要想作好这个工作，只有发动群众 (If we want to do this work well, the only way is to mobilize the masses).

5. **Búdàn... érqiě...** 不但……而且…… indicates progression, as in **Zhèlǐ búdàn fēngjǐng yōuměi, érqiě jiāotōng fāngbiàn** 这里不但风景优美，而且交通方便 (Not only is the scenery here beautiful, transportation is convenient too).

Exercise

Translate the following sentences into Chinese using the forms given.

1. We're not going to a reception but to a scientific forum. (不是……而是……)

2. If he hasn't gone shopping he's gone to see friends. (不是……就是……)

3. Even if there are difficulties we must do this job well. (即使……也……)

4. Zhang Zhong has been very busy lately, you can only find him if you go to his house at night.

(只有……才……)

5. After liberation, not only did the people of Fangua Lane stand up politically, economically and culturally, but their housing conditions also improved greatly. (不但……而且……)

(Answers on p. 48)



Ancient Military Books Rediscovered

CHAN LI-PO

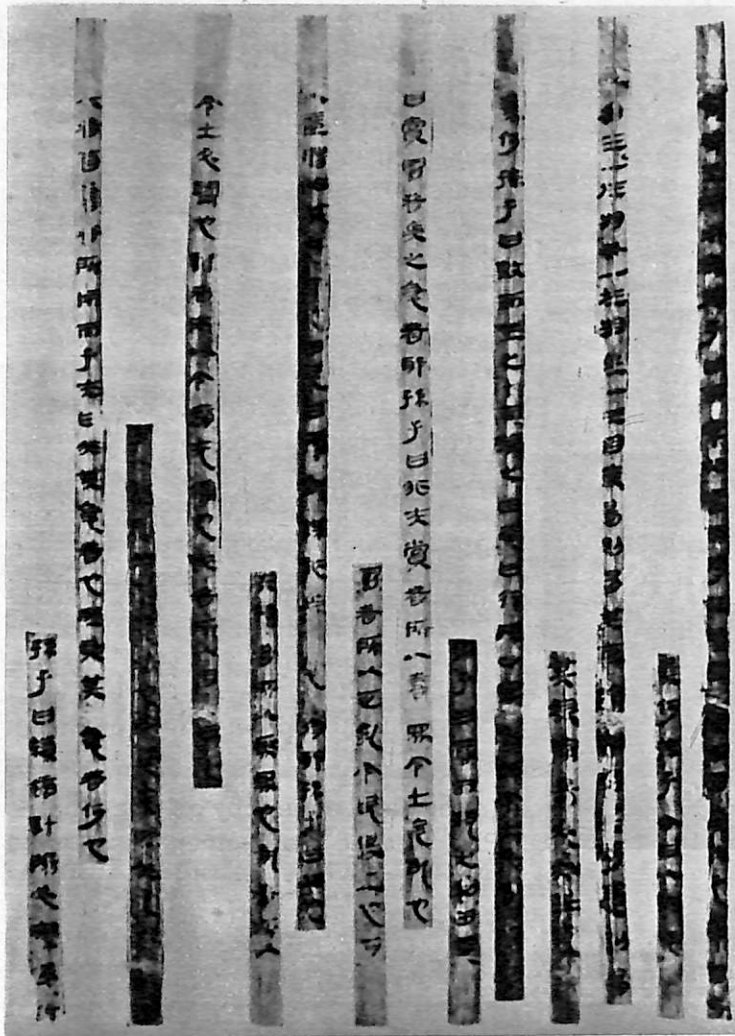
A POPULAR Chinese historical anecdote from the mid-Warring States period (475-221 B.C.) tells how a warrior, racing three horses successively against three of his opponent's, won 2:1 by pitting his worst horse against his opponent's best, his best horse against the other's second-best, and his second-best against the other's worst horse. The idea, suggested to the warrior by Sun Pin, a famous military strategist of the period, is an example of the latter's over-all strategic approach. The military writings of Sun Pin — described by later authors as a treatise named *Sun Pin's Art of War* — were for centuries presumed lost. In April 1972 a copy of the treatise was found in a tomb from the Western Han dynasty (206 B.C. - A.D. 24) at Yinchuehshan in Linyi county, Shantung province. The bamboo slips on which it was written with Chinese ink had been buried underground for over 1,700 years. A facsimile of the slips together with commentaries on them will soon be published by the Cultural Relics Publishing House.

Altogether 4,942 bamboo slips were found in the Yinchuehshan tomb. One hundred and five of them with 1,000-some characters make up another book, *Master Sun's Art of War*, China's most ancient military treatise. It is the work of Sun Wu, a famous strategist at the end of the Spring and Autumn period (770-475 B.C.) and an ancestor of Sun Pin. The writings of the earlier Sun had not been lost but have come down to the present in a Sung dynasty edition. Comparison shows the titles of the 13 chapters of this early edition to be identical to those of the Sung edition, which contained annotations by 11 scholars, collected at the end of the 12th century and beginning of the 13th.

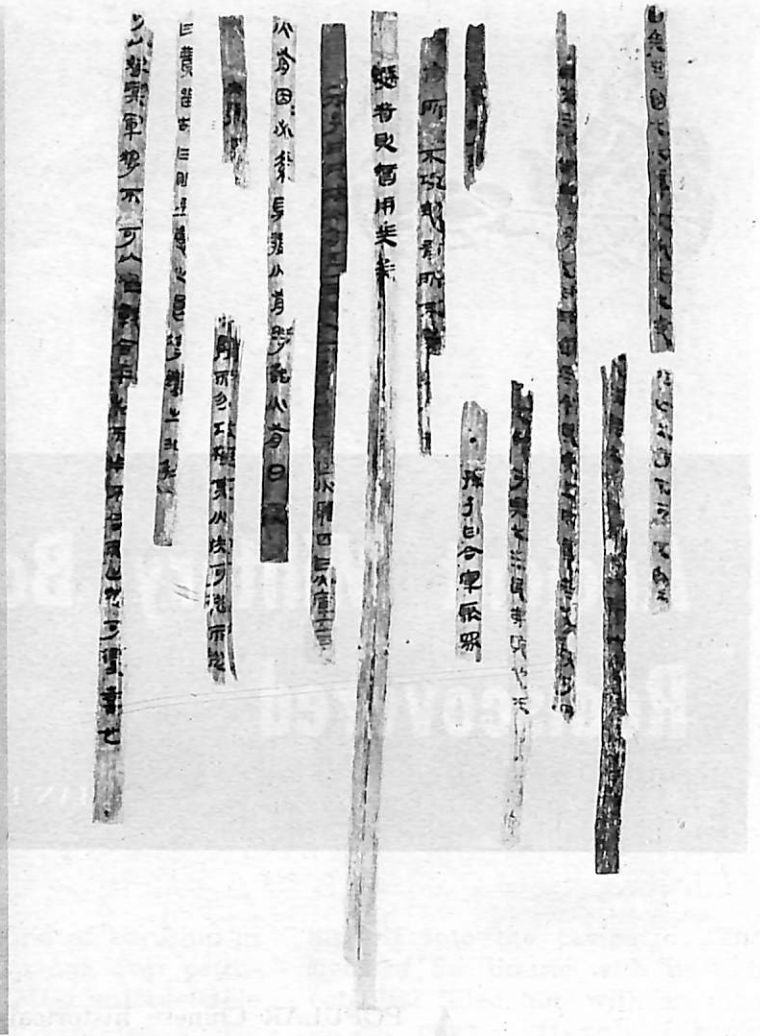
The lack of a copy of the Sun Pin treatise had given rise to

Removal of bamboo slips of ancient writings found in a Han dynasty tomb.





Some of the bamboo slips making up Sun Pin's Art of War.



Bamboo slips from Master Sun's Art of War.

doubts as to whether *Master Sun's Art of War* had actually been written by a man named Sun Wu. Books written before the Chin dynasty (221-207 B.C.) were frequently the product of several persons. Some scholars thought the extant copy of *Master Sun's Art of War* might have been begun by Sun Wu and later completed by Sun Pin. The discovery of the two treatises together ended this long-standing controversy.

Two hundred twenty-three bamboo slips from *Sun Pin's Art of War*, containing some 6,000 characters, have already been sorted out. From them one can see the outline of the book and the writer's basic views.

THE Spring and Autumn and Warring States periods were times of great change in Chinese history. Feudalism was replacing

slave society. The rising landlord class and the masses of the people wanted to overthrow the separate local regimes of the slaveowners and unify the country. The Legalists, a group of thinkers representing the emerging landlord class,* and the Confucianists, followers of Confucius representing the ideology of the declining slave-owning class,** were engaged in a sharp struggle over the questions of anti-slavery reforms and unification of the country. To statesmen and military men of the landlord class fell the historical task of unifying the country by means of war. Both Sun Wu and Sun Pin were military strategists for the landlord class, with the latter developing and enriching the thought of the former in some respects.

Chairman Mao teaches us that in studying our historical heritage we should "... use the Marxist method

to sum it up critically". He also pointed out, "In past history, before they won state power and for some time afterwards, the slave-owning class, the feudal landlord class and the bourgeoisie were vigorous, revolutionary and progressive . . ." Because they reflected the thinking of the his-

* The Legalists, representing the interests of the rising landlord class, were the most important of various schools of thought which opposed Confucianism. They held the materialist view that man can conquer nature, in opposition to the idealist conception that man should "obey the will of heaven". They stood for reforms which would prevent restoration of the old order. They advocated laws in the interests of the landlord class and opposed the special hereditary rights for the slave-owning aristocracy and their hierarchy of ducal states. They advocated the use of force to attack the political power of the slave-owning class and to establish and consolidate a unified feudal state.

** The Confucian school was founded by Kung Chiu, known to the world as Confucius. In his attempt to save the slave system he urged return to the old order and carried on political activity against its reform. A full article on Confucius appeared in the May 1974 issue of *China Reconstructs*.

torically advanced class. *Master Sun's Art of War* and *Sun Pin's Art of War* were able to accurately sum up some of the general experience of war. Much of their strategic thinking conforms to the laws of development of war in general.

In his writings Chairman Mao has many times cited the ideas of military strategists of ancient times and battles fought by them. Speaking of Sun Wu, he observed, ". . . (his) axiom 'Know the enemy and know yourself, and you can fight a hundred battles with no danger of defeat' remains a scientific truth."

The story about "relieving the State of Chao by besieging the State of Wei" is an example of Sun Pin's strategy. In 353 B.C., besieged by troops of the State of Wei, the king of the State of Chao called on the State of Chi for help. The king of Chi ordered General Tien Chi and Sun Pin, chief of staff in Chi, to lead troops to Chao. Sun Pin suggested that Wei, with its strength concentrated on the attack on Chao, would have insufficient forces guarding its homeland. A direct attack on Wei by Chi would force the Wei troops to return to defend their land, thus ending the siege of Chao. The king of Chi accepted Sun Pin's idea, and his army defeated the Wei troops as they were returning home exhausted. In the article "Problems of Strategy in Guerrilla War Against Japan", Chairman Mao wrote thus of this tactic: "Should the enemy stay put in our base area, we may . . . leave some of our forces in the base area to invest the enemy while employing the main force to attack the region whence he has come and step up our activities there in order to induce him to withdraw and attack our main force; this is the tactic of 'relieving the State of Chao by besieging the State of Wei'."

SEVERAL important points emerge from those bamboo slips of *Sun Pin's Art of War* which

we have already arranged and studied.

1. War as a means of settling an issue. The Legalists, though they were against militarism, regarded war in this way, and so did Sun Wu and Sun Pin. They supported war to unify the country as demanded by the landlord class, a progressive war and the main trend and desire of the people at that time. It accorded with the direction of historical development, as history itself was later to testify. Most of the hundred-some small independent slave-owning states that had existed in the Spring and Autumn period were swallowed up during the course of the wars. By the mid-Warring States period only a dozen states remained. This facilitated social reform and the unification of China.

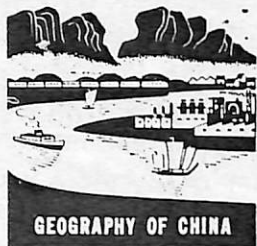
2. The strategic idea that it is possible for the few to defeat the many and the weak to defeat the strong. Sun Pin proposed cutting the force of a strong enemy into segments and pinning them down. If the enemy is superior in number and quality, he pointed out, it is necessary to keep him from attacking, pretend weakness to make him arrogant and use all sorts of tricks to lead him astray and exhaust him, then mount a surprise attack when he is totally unprepared.

3. Tactically, great attention to attacks on cities and the deployment of troops. As the feudal states developed economically during the Warring States period, big cities emerged as political, economic and cultural centers. Sun Pin held that without capturing cities from the enemy, war would yield no political and economic benefits. Sun Pin's theory on the deployment of troops is much more concrete and systematic than that of Sun Wu because chariot warfare, the main form during the Spring and Autumn period, had developed into a combination of infantry, cavalry, archers and chariots.

4. Strict qualifications for generals and the important rôle of man's initiative. *Sun Pin's Art of War* has special chapters on the qualifications for generals and cites over fifty examples of how a war or battle was lost as a result of a general's incorrect leadership or shortcomings.

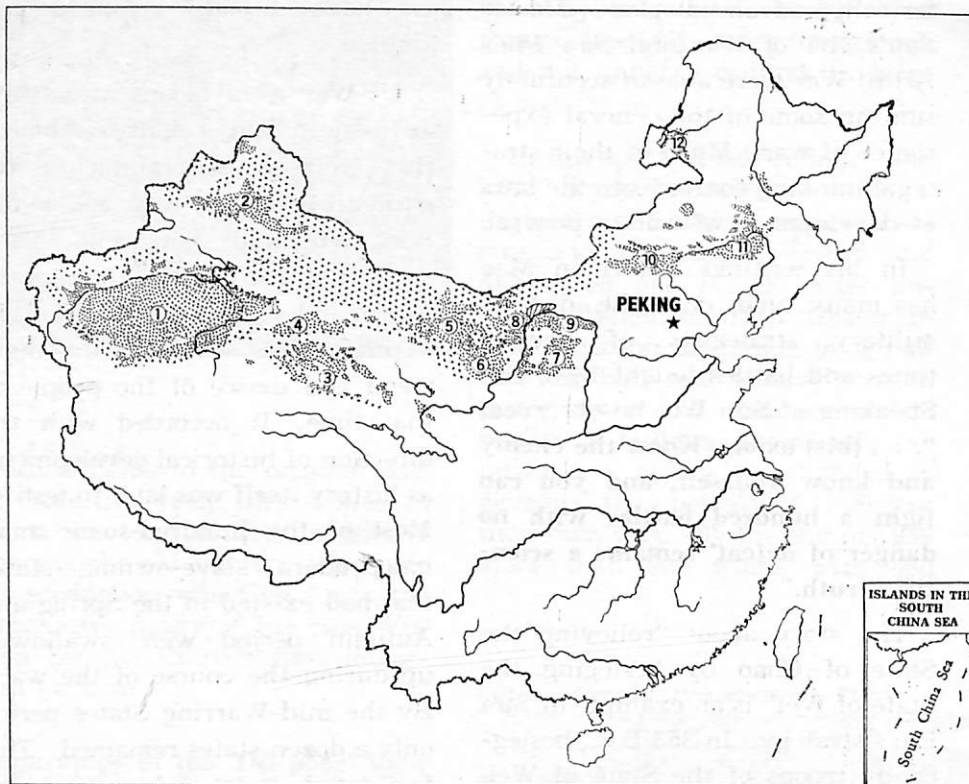
5. The work is permeated with a rudimentary dialectical materialist thinking. When directing a battle a general should never act according to his subjective view but must consider all concrete conditions such as the situation of the enemy, topography and the layout of the battlefield. He must not just one-sidedly see either his or the enemy's strong or weak points, but on the basis of the strong points assess the weak points and vice versa. In addition he must realize that the situation can change and develop.

MOST of the other bamboo slips unearthed in this Han tomb were also military treatises. The rest were books by scholars before the Chin dynasty. There were no writings of the Confucian school among them. From references on the slips, the tomb seems to date from the year 134 B.C. or after. This means the time when these slips were interred was not far from 213 B.C., when the Chin dynasty emperor Chin Shih Huang ordered the "burning of books and burying of scholars" that opposed his measures on behalf of the new landlord class. The finds in the tomb are proof that Chin Shih Huang burned only reactionary Confucian classics which attacked the rule of the landlord class and advocated restoration of slavery, that is, that he aimed his blows only at reactionary elements who clamored for restoration of the old order. This is of great significance in our study of the struggle between the progressive and reactionary forces during the Spring and Autumn and Warring States periods.



Deserts

Map of China's Deserts: (1) Taklamakan (2) Kurban-Tungut (3) Tsaidam (4) Kumutako (5) Badan Jiryn (6) Tyngeri (7) Maowusu (8) Ulanbuh (9) Kupuchi (10) Lesser Tyngeri (11) Khorchin Sandy Land (12) Hulunbuir Sandy Land



An investigation team in the heart of the Taklamakan desert.





Transforming the desert into farmland.

DESERTS cover a total area of 1,000,000 square kilometers, more than one-tenth of China. They run from the Pamirs in the west to the Greater Khingan Mountains in the northeast. The Taklamakan is the largest. It occupies 320,000 sq. km. in the heart of the Sinkiang Uighur Autonomous Region and is one of the well-known shifting deserts in the world.

Most of China's deserts lie in basins between mountains. About a million years ago, rivers began carrying large quantities of weathered materials from the mountain areas down into the nearby basins or plains, forming heavy alluvial deposits and sedimentary layers. These are the principal materials of the deserts. Traces of ancient riverbeds, deltas and lakes as well as fresh-water animals can be seen in the deserts today. In addition, the constant abrasion and erosion of sandstone and sand-clay rocks by the wind has increased the sand.

The deserts contain abundant natural resources. It is estimated that more than 13,000,000 hectares can be turned into farmland. Lakes surrounded by grass have been found, 120 in the Tyngeri and a number in the Badan Jiryn and Maowusu deserts. Large salt works have been set up around salt lakes such as Kilantai Lake. Desert margins and rivers are lined with Euphrates poplars — some 420,000

hectares of them along the river valleys in the Taklamakan alone.

There are more than 200 kinds of wild plants in the deserts, including important medicinal herbs such as ephedra and licorice. The Taklamakan and Tsaidam deserts are rich in Lop Nor hemp, used in industry and textiles. Important oilfields are located in the desert at Karamai in northern Sinkiang and Tsaidam in western Chinghai. In addition to exploiting the natural resources of the deserts, the Chinese people have made great efforts to control and transform them. Three methods are used: planting trees and grass, building wind-and-sandbreaks, and developing water conservation projects.

Planting trees and grass. Since the founding of the People's Republic in 1949, the people of various nationalities in Sinkiang, Inner Mongolia, Kansu, Ningsia and Shensi, following Chairman Mao's directive "**Cover the country with trees**", have planted large shelter belts along the borders of deserts and tracts of forests in farm areas. This has reduced wind velocity and stopped the shifting sand from swallowing up fields and pastures.

A shelter belt in northeast China, 1,000 km. long and 50 km. wide, protects farmland on the broad Sung-Liao plain. One northeast of the Ulanbuh desert in Inner Mon-



A new village in the Maowusu desert.

golia, 150 km. long, has freed an area west of the great bend of the Yellow River from the menace of the desert and enabled 5,300 hectares to be restored to cultivation. In the oases of Sinkiang, trees and shelter belts have stopped the threat of wind and sand. Ching-pien county in north Shensi is often swept by sandstorms along the Great Wall. In 1949, vegetation covered only 0.1 percent of the land area. Tree planting has raised it to 8 per cent today.

In desert areas where there is more rainfall and water, the people have planted tough grasses to anchor the sand. The Usantsao commune in the Maowusu desert in Inner Mongolia has set up 58



Spring wheat in the Tyngeri desert in Ningsia.

pasture meadows with an area of 7,300 hectares and planted 1,730 hectares of trees — an average of 200 trees per person (at the time of liberation it was one tree to 20 persons). This has brought 13,300 hectares of desert under control and greatly accelerated stock-breeding.

Minchin county in Kansu province, surrounded by shifting sand on three sides, has a 300-km. sand-storm line. Since liberation, the people have made much progress in sand control by combining vegetation — shelter belts, trees on dunes and grass in the sand — with burying the dunes with earth and building sandbreaks. Since the beginning of the cultural revolution, they have combined desert control with tapping underground water, greatly promoting agriculture. The county's grain output has quadrupled since liberation. Encroaching sand no longer covers

fertile fields, forcing the people to flee.

Building wind-and-sandbreaks. In regions where vegetation is sparse, the people build "gridiron" wind and sandbreaks with weeds, branches, clay and pebbles facing the wind. These resist air currents and reduce wind velocity near the ground, thus stabilizing the shifting sand. Since these "gridiron"

sandbreaks were built along the Paotow-Lanchow railway through the southeastern part of the Tyngeri desert, it has never been blocked. Since the beginning of the cultural revolution, the people have begun to irrigate these sandbreaks with water from the Yellow River and artificial rain. This has helped the growth of vegetation and completely eliminated the menace of sand to the railway.

Water conservation projects. Water conservation projects help to prevent drought as well as control the sand. The people of north Shensi province have channeled water into the desert and, by pumping to the top of dunes, washed them down and converted them into level fields. This has increased their farmland since liberation by 16,700 hectares. Since the beginning of the cultural revolution, they have used this method in building dams, using water to carry sand and soil into the dam where it dries into a solid body. Five 10,000,000-cubic-meter reservoirs have been built using this method.

By digging irrigation canals and building *kareze* — chains of wells connected underground — to direct water from the melting snow on mountain peaks and subterranean water, the Uighurs in Sinkiang have created oases in the Tarim and Turfan basins. The desert-grown Turfan grapes and the sweet Hami melons are well known throughout China.

These three methods of controlling sand, used alone or jointly according to local conditions, are constantly transforming China's deserts. The area of farmland and pastures in the deserts is steadily growing.

Answers to LANGUAGE CORNER Exercises

1. 我们不是去参加招待会, 而是去参加科学讨论会。
2. 他不是去买东西, 就是去看朋友了。
3. 即使有困难, 我们也要把这个工作作好。
4. 张中最近很忙, 只有晚上到他家去, 才能找到他。
5. 解放后, 蕃瓜弄人民不但在政治上、经济上、文化上翻了身, 而且居住条件也得到了彻底的改善。

